

**Supplementary Table 1. Differentially expressed genes in Riccia fluitans thallus after high-dose micro-/nanoplastic treatment indicated homology to at least one of two reference organisms**

Gene.ID	Marchantia Gene.ID	Percentage identity	Percentage coverage	INSDC_ID	Arabidopsis transID	Arabidopsis geneID	Arabidopsis Identity	Arabidopsis description	Arabidopsis geneName	Arabidopsis coverage	Ricciocarpos Identity	ID	Ricciocarpos Perc	log2FoldChange	padj
MSTRG.8920	Mp3g15460	80,23	1	PTQ48857				fatty acid desaturase A [Source:NCBI gene						-7,982821354	1,2281E-07
MSTRG.15222	Mp6g04480	77,459	0,976	PTQ41486	AT4G27030.	AT4G27030	52,632	(formerly Entrezgene);Acc:828811] elongation factor family protein [Source:NCBI gene (formerly	FADA	0,7058824				-6,368873098	0,000144276
MSTRG.4206	Mp2g02820	89,405	1	PTQ34927	AT5G13650.	AT5G13650	74,121	Entrezgene);Acc:831209] OSBP(oxysterol binding protein)-related protein 4B [Source:NCBI gene (formerly	SVR3	0,9259259	92,14	Rn_07945.1	0,89336801	-5,628455537	3,20837E-07
MSTRG.12002	Mp4g05320	69,577	0,8891688	PTQ33624	AT4G25850.	AT4G25850	43,947	Entrezgene);Acc:828691] GHMP kinase family protein [Source:NCBI	ORP4B	0,9921671	79,224	Rn_02396.2	0,91624365	-5,423625167	0,001363612
MSTRG.20480	Mp8g14400	76,023	0,9961014	PTQ31721	AT1G31910.	AT1G31910	48,649	gene (formerly Entrezgene);Acc:840081] initiation factor 4F subunit (DUF1350) [Source:NCBI gene (formerly	AT1G31910	0,9940594				-5,067081049	0,010002413
MSTRG.17561	Mp5g02740	65,823	0,911007	PTQ30478	AT3G43540.	AT3G43540	50	Entrezgene);Acc:823446] zinc knuckle (CCHC-type) family protein [Source:NCBI gene (formerly	AT3G43540	0,8927614	84,759	Rn_17392.1	0,82560706	-5,009142854	0,010175274
MSTRG.14207	Mp5g04210	57,506	0,8639175	PTQ29453	AT3G42860.	AT3G42860	35,277	Entrezgene);Acc:823332] uncharacterized protein [Source:NCBI gene	AT3G42860	0,7526882	61,864	Rn_17585.1	0,9486653	-4,878663858	0,029767573
MSTRG.18536	Mp7g09010	76,111	1	PTQ35839	AT4G04190.	AT4G04190	50,811	(formerly Entrezgene);Acc:825734] MIZU-KUSSEI-like protein (Protein of unknown function, DUF617) [Source:NCBI	AT4G04190		1			-4,750289529	0,020124082
MSTRG.5780	Mp2g13620	92,562	1	PTQ43105	AT5G06990.	AT5G06990	48,444	gene (formerly Entrezgene);Acc:830590] GDP-L-galactose phosphorylase 1 [Source:NCBI gene (formerly	AT5G06990	0,8390805				-4,71449438	0,016636768
MSTRG.9050	Mp3g13840	63,656	0,9505376	PTQ49063										-4,652067986	0,010002413
MSTRG.739	Mp1g07760	64,031	0,8906606	PTQ41014	AT4G26850.	AT4G26850	51,852	Entrezgene);Acc:828792] YELLOW STRIPE like 6 [Source:NCBI gene	VTC2	0,8823529				-4,592418911	1,07453E-10
MSTRG.12615	Mp4g01710	63,351	0,994528	PTQ32480	AT3G27020.	AT3G27020	58,915	(formerly Entrezgene);Acc:822319] FGGY family of carbohydrate kinase [Source:NCBI gene (formerly	YSL6	0,9467456	70,23	Rn_02623.1	1	-4,552858086	0,047930687
MSTRG.18289	Mp7g12740	87,858	0,9816972	PTQ49435	AT4G30310.	AT4G30310	67,863	Entrezgene);Acc:829154] Calcium-binding endonuclease/exonuclease/phosphatase family [Source:NCBI gene (formerly	AT4G30310	0,9896373	90,806	Rn_11799.1	0,99355878	-4,550457448	0,035845975
MSTRG.16606	Mp6g00490	71,795	1	PTQ31981	AT5G54130.	AT5G54130	46,711	Entrezgene);Acc:835500] magnesium/proton exchanger [Source:NCBI	AT5G54130	0,9449541				-4,534258286	0,030491684
MSTRG.447	Mp5g09180	64,265	1	PTQ32782										-4,508619848	0,025849162
MSTRG.21096	Mp5g19790	76,335	0,9123377	PTQ29827	AT2G47600.	AT2G47600	41,569	gene (formerly Entrezgene);Acc:819373] allantoinase [Source:NCBI gene (formerly	MHX	0,8701299	74,69	Rn_03380.4	0,92127303	-4,459983283	0,035791229
MSTRG.17968	Mp7g09530	75,435	1	PTQ28731	AT4G04955.	AT4G04955	54,675	Entrezgene);Acc:825836] protein [Source:NCBI gene (formerly	ALN	0,9565217				-4,426294948	0,00289712
MSTRG.10842	Mp4g00620	59,348	1	PTQ36126										-4,394073398	0,017076662
MSTRG.3410	Mp1g23640	82,08	1	PTQ36190	AT1G32900.	AT1G32900	70,037	hydroxycinnamoyl transferase [Source:NCBI	GBSS1	0,8737705				-4,380388556	6,79995E-13
MSTRG.31	Mp1g03460	63,927	0,9318182	PTQ48644	AT5G48930.	AT5G48930	35,44		HCT	0,9307159				-4,347222531	0,037389617
MSTRG.11792	Mp4g01210	85,016	0,9586645	PTQ36063										-4,315958191	0,038742891









MSTRG.21411	Mp8g10240	72,955	0,9647189	PTQ47447	AT1G68560. AT1G68560	48,434	(formerly Entrezgene);Acc:843185]	XYL1	0,9584699	76,685	Rn_00174.1	0,99889381	1,319967996	0,014436718
MSTRG.12086	Mp4g23220	65,426		1 PTQ44429									1,338913703	0,028985248
MSTRG.9083	Mp3g25090	58,696	0,9854015	PTQ32308									1,346799189	0,029611527
MSTRG.16391	Mp6g03460	78,041		1 PTQ41357	AT3G01930. AT3G01930	49,418	[Source:NCBI gene (formerly	AT3G01930	0,9931507				1,348907098	0,005294964
MSTRG.19917	Mp8g00930	60,494		1									1,351144648	0,001944792
MSTRG.4329	Mp2g20040	76,768	0,9949749	PTQ37767	AT4G24040. AT4G24040	49,818	Entrezgene);Acc:828504]	TRE1	0,8722045				1,353084246	0,009084163
MSTRG.18940	Mp7g16360	77,687	0,9873418	PTQ30526	AT2G17700. AT2G17700	41,065	protein [Source:NCBI gene (formerly	STY8	0,9267399				1,353729773	0,031100742
MSTRG.18088	Mp7g03680	75,984		1 PTQ35037	AT3G22850. AT3G22850	46,4	LRDR motifs [Source:NCBI gene (formerly	AT3G22850	0,9879032				1,354893003	0,002174363
MSTRG.19226	Mp7g17580	68,553	0,9216867	PTQ38497	AT5G13200. AT5G13200	38,832	gene (formerly Entrezgene);Acc:831159]	AT5G13200	0,9338235	81,57	Rn_08584.1	0,88990826	1,358239089	0,001281604
MSTRG.5756	Mp2g18300	83,399		1 PTQ27996	AT3G05940. AT3G05940	66,077	(DUF300) [Source:NCBI gene (formerly	AT3G05940	0,8033175				1,367336886	0,018055302
MSTRG.4050	Mp5g22830	69,737	0,9637681	PTQ46801	AT5G67480. AT5G67480	50,595	gene (formerly Entrezgene);Acc:836884]	BT4	0,8978495				1,371640942	0,03940059
MSTRG.5019	Mp2g08260	57,657	0,9907285	PTQ26749									1,380441605	0,010020945
MSTRG.19804	Mp4g11430	79,358	0,9746647	PTQ46452	AT1G17840. AT1G17840	53,834	[Source:NCBI gene (formerly	ABCG11	0,9004267	87,057	Rn_10772.1	0,97447447	1,3822222	0,036674255
MSTRG.12586	Mp4g23890	48,876		1 PTQ44515									1,386186639	0,011611927
MSTRG.18718	Mp7g13980	67,56		1 PTQ46971	AT2G41480. AT2G41480	42,208	[Source:NCBI gene (formerly	AT2G41480	0,929878				1,386851547	0,00111615
MSTRG.2828	Mp1g05055	46,014	0,895189										1,387059978	0,023751164
MSTRG.10997	Mp4g05400	76,608	0,8715596	PTQ33613						79,79	Rn_01433.1	0,80511571	1,414353905	0,022387402
MSTRG.21657	Mp8g17810	60,284	0,9929577	PTQ42390	AT4G00680. AT4G00680	46,565	gene (formerly Entrezgene);Acc:828037]	ADF8	0,9357143				1,415979594	0,002889016
MSTRG.12614	Mp4g01710	72,727	0,994528	PTQ32480	AT3G27020. AT3G27020	59,701	(formerly Entrezgene);Acc:822319]	YSL6	0,9822485	81,055	Rn_02623.1	1	1,442619433	0,019591725
MSTRG.6843	Mp2g20610	79,71	0,9857143		AT5G43350. AT5G43350	67,495	gene (formerly Entrezgene);Acc:834353]	PHT1;1	0,9770992				1,457474331	6,78943E-05
MSTRG.9331	Mp3g09460	79,11		1 PTQ33871	AT5G61380. AT5G61380	36,027	protein [Source:NCBI gene (formerly	TOC1	0,9174757	87,65	Rn_05309.2	1	1,457551601	0,00485673
MSTRG.981	Mp1g05930	53,247	0,8850575										1,462960343	0,025849162
MSTRG.10759	Mp4g06100	77,143	0,994832	PTQ31232									1,481330959	0,00954789
MSTRG.7492	Mp3g17370	88,571		1 PTQ40552	AT5G63500. AT5G63500	55,385	3339] [Source:NCBI gene (formerly	AT5G63500	0,942029				1,483714605	0,002002688
MSTRG.6851	Mp7g13050	84,049	0,8956044	PTQ49484	AT1G10630. AT1G10630	84,049	gene (formerly Entrezgene);Acc:837606]	ARFA1F	0,9005525				1,493748441	0,032966188
MSTRG.18659	Mp7g15460	81,235	0,8960177	PTQ47178	AT1G69800. AT1G69800	54,613	[Source:NCBI gene (formerly	AT1G69800	0,8903803	84,887	Rn_12834.1	0,87831858	1,497141659	0,004352813
MSTRG.5115	Mp2g08950	77,81	0,9204244	PTQ45397	AT4G01370. AT4G01370	68,786	Entrezgene);Acc:828151]	MPK4	0,9148936	61,557	Rn_08414.1	0,87446809	1,499902261	0,030525114
MSTRG.1390	Mp1g07250	57,597		1 PTQ39887	AT1G76590. AT1G76590	42,963	[Source:NCBI gene (formerly	AT1G76590	0,9306122				1,500733286	0,020731295
MSTRG.9148	Mp3g07130	75,646		1 PTQ48164	AT2G23810. AT2G23810	53,704	Entrezgene);Acc:816913]	TET8	0,981685				1,523965714	5,82727E-05
MSTRG.11605	Mp4g14430	85,915	0,8352941	PTQ35571	AT3G58670. AT3G58670	48,673	(DUF1637) [Source:NCBI gene (formerly	AT3G58670	0,892562				1,530320421	0,037004312
MSTRG.16437	Mp6g01640	94,326		1 PTQ38240	AT2G47900. AT2G47900	61,321	(formerly Entrezgene);Acc:819402]	TLP3	1				1,537142367	2,52342E-06
MSTRG.1224	Mp5g16610	47,799		1 PTQ30991									1,562545293	0,042397392
MSTRG.14547	Mp6g19440	55,056		1 PTQ39468									1,579198734	0,023072672
MSTRG.5586	Mp2g17450	71,557	0,990991	PTQ32833	AT5G22340. AT5G22340	41,697	[Source:NCBI gene (formerly	AT5G22340	0,8328173				1,588283296	0,037706154
MSTRG.13651	Mp4g23410	88,916	0,9805195	PTQ44449	AT1G17500. AT1G17500	62,138	dehalogenase-like hydrolase family protein	AT1G17500	0,9819079				1,598253691	0,006512701
MSTRG.16777	Mp6g05730	76,972		1 PTQ32595									1,60214779	0,035845975
MSTRG.13017	Mp3g17090	40,764	0,9978448	PTQ40596									1,608727026	0,030941049
MSTRG.13400	Mp4g18210	70,225	0,8592233	PTQ40238	AT4G35770. AT4G35770	47,712	superfamily protein [Source:NCBI gene	SEN1	0,8351648				1,621915878	2,56219E-06
MSTRG.4624	Mp2g14680	88,288		1 PTQ40055	AT1G48130. AT1G48130	51,852	gene (formerly Entrezgene);Acc:841231]	PER1	0,9722222				1,625905961	0,031100742
MSTRG.4581	Mp2g06720	41,333	0,9375	PTQ44271									1,63628224	0,03948977
MSTRG.10539	Mp3g07520	81,471	0,991573	PTQ48223	AT5G63190. AT5G63190	57,528	[Source:NCBI gene (formerly	AT5G63190	1				1,653263401	0,000116347
MSTRG.17485	Mp7g10100	88,452		1 PTQ49124	AT3G51370. AT3G51370	60,59	[Source:NCBI gene (formerly	AT3G51370	0,9788918				1,653537899	0,002613385
MSTRG.12220	Mp5g14810	85,489	0,994077	PTQ27062	AT5G51070. AT5G51070	61,839	Entrezgene);Acc:835180]	ERD1	0,9068783	87,879	Rn_03624.2	1	1,66058004	5,98466E-05
MSTRG.3147	Mp1g23820	90,837		1 PTQ36898	AT5G43430. AT5G43430	74,502	[Source:NCBI gene (formerly	ETF BETA	1				1,665527228	0,003235397



MSTRG.887	Mp1g00810	60,697	0,9850746	PTQ32032				62,069	Rn_14485.1	0,98507463	2,165674582	0,001379602
MSTRG.900	Mp1g08920	76,749		1 PTQ41160							2,165796896	0,003860965
MSTRG.14181	Mp6g17980	87,5		1 PTQ40647							2,172399046	0,017479407
MSTRG.6775	Mp2g08820	66,856	0,9616438					69,318	Rn_08427.1	0,81400966	2,176678091	0,000494042
MSTRG.7255	Mp3g10710	71,255		1 PTQ40957	AT3G15730. AT3G15730	56,227	(formerly Entrezgene);Acc:820816]				2,18789849	0,013613991
MSTRG.11249	Mp4g09200	57,822	0,9938462	PTQ31364				65,278	Rn_02436.5	0,98305085	2,19726298	0,000459737
MSTRG.12135	Mp4g13880	67,13	0,9448124	PTQ35633							2,206735315	0,026977592
MSTRG.6414	Mp2g19600	65,109		1 PTQ37834	AT3G03800. AT3G03800	53,618	(formerly Entrezgene);Acc:821141]				2,223453502	3,091E-07
MSTRG.14918	Mp6g10340	58,904	0,844358	PTQ45016							2,263946615	0,007865991
MSTRG.9249	Mp3g16350	84,375		1 PTQ48738							2,271876092	0,032620476
MSTRG.11525	Mp5g19880	87,966		1 PTQ27328	AT1G13440. AT1G13440	77,381	C2 [Source:NCBI gene (formerly	GAPC2	0,9940828		2,272022405	0,00040001
MSTRG.11250	Mp4g09210	84,774	0,9346154	PTQ31365	AT1G65930. AT1G65930	79,854	dehydrogenase [Source:NCBI gene (formerly	cICDH	1		2,284545097	6,1211E-13
MSTRG.11121	Mp4g05450	59,763		1 PTQ33607							2,29458414	5,14613E-10
MSTRG.12242	Mp4g22130	47,148	0,9003436	PTQ33271				63,177	Rn_02103.1	0,99638989	2,336773429	0,010902461
MSTRG.5243	Mp5g17000	82,456	0,9047619	PTQ30924							2,342363512	0,000941223
MSTRG.10660	Mp4g00100	50,435	0,9495798	PTQ28481							2,359885413	0,001484767
MSTRG.19400	Mp7g15000	61,168	0,8834356	PTQ47100	AT5G64120. AT5G64120	45,205	gene (formerly Entrezgene);Acc:836533]	AT5G64120	0,8871951		2,361398842	0,005176719
MSTRG.3225	Mp1g02840	64,948	0,9874214	PTQ31297	AT1G01040. AT1G01040	36,005	Entrezgene);Acc:839574]	DCL1	0,8035621		2,365029443	1,36243E-05
MSTRG.741	Mp1g10870	57,741	0,974026	PTQ45620							2,376288998	5,14486E-05
MSTRG.17053	Mp7g01400	77,489		1 PTQ32376							2,377643425	0,012902703
MSTRG.21238	Mp8g15410	67,812		1 PTQ34572	AT3G47550. AT3G47550	47,231	protein [Source:NCBI gene (formerly	AT3G47550	0,9618056		2,379198593	5,17337E-10
MSTRG.1661	Mp1g02750	81,685	0,9349315	PTQ31285	AT5G44730. AT5G44730	65,041	superfamily protein [Source:NCBI gene	AT5G44730	0,9607843		2,400219032	0,000460804
MSTRG.162	Mp5g21020	68,635	0,9678571	PTQ37307							2,40121023	0,008967549
MSTRG.15608	Mp6g18140	90,625	0,9955357	PTQ40664	AT1G07920. AT1G07920	89,509	protein [Source:NCBI gene (formerly	AT1G07920	0,9933185		2,410767363	0,000266745
MSTRG.19073	Mp7g10040	54,194	0,9625	PTQ49115							2,426857103	6,12521E-06
MSTRG.7815	Mp3g07750	68,79	0,98125	PTQ48253	AT3G11470. AT3G11470	43,706	superfamily [Source:NCBI gene (formerly	AT3G11470	0,89		2,433625559	0,001280281
MSTRG.5095	Mp2g11890	84,914	0,8754864								2,458916619	0,000265564
MSTRG.12598	Mp4g16470	65,314	0,9550781		AT1G56310. AT1G56310	36,106	like superfamily protein [Source:NCBI gene	AT1G56310	0,8862479		2,477215748	0,023907884
MSTRG.10107	Mp6g07600	46,912	0,8233618	PTQ38139	AT5G54510. AT5G54510	39,701	[Source:NCBI gene (formerly	DFL1	0,9591503		2,478673094	0,0044739
MSTRG.14329	Mp1g21400	70,526	0,9313725	PTQ50537							2,497263278	0,00289712
MSTRG.12487	Mp4g03900	87,562		1 PTQ39644	AT2G06990. AT2G06990	68,528	protein [Source:NCBI gene (formerly	HEN2	0,9668342		2,506746249	0,009813842
MSTRG.17661	Mp5g15630	70,539		1 PTQ35431	AT1G24620. AT1G24620	52,482	[Source:NCBI gene (formerly	AT1G24620	0,7365591		2,508411867	8,75655E-08
MSTRG.9581	Mp5g04040	59,14	0,8181818								2,512531733	6,7525E-06
MSTRG.455	Mp1g14390	82,774		1 PTQ27935	AT1G51350. AT1G51350	43,012	[Source:NCBI gene (formerly	AT1G51350	0,9594595		2,520063113	1,31249E-05
MSTRG.4729	Mp2g07920	84,483	0,95625	PTQ45271	AT1G74380. AT1G74380	65,271	gene (formerly Entrezgene);Acc:843779]	XXT5	0,8796499		2,523978803	0,020163869
MSTRG.10537	Mp4g16650	100		1 PTQ38031	AT1G61700. AT1G61700	88,732	[Source:NCBI gene (formerly	AT1G61700	1		2,526839804	0,035791229
MSTRG.18118	Mp4g16550	46,104	0,9363057	PTQ26280	AT1G60950. AT1G60950	41,176	[Source:NCBI gene (formerly	FED A	0,9932432		2,530243299	0,012192247
MSTRG.1696	Mp1g02040	64,378	0,9935135	PTQ42500							2,545433434	1,11565E-05
MSTRG.20728	Mp8g14810	43,056	0,9918699	PTQ28952				64,87	Rn_09116.1	0,99201597	2,555733696	0,02073362
MSTRG.19881	Mp8g00660	64,062		1 PTQ34676							2,561181868	0,023236019
MSTRG.10862	Mp4g04090	67,982	0,9432203	PTQ39606							2,585495957	0,009928126
MSTRG.3803	Mp1g14820	69,373	0,8996656	PTQ28837	AT1G28100. AT1G28100	45,423	(formerly Entrezgene);Acc:839703]	AT1G28100	0,9751773		2,589201715	0,003860965
MSTRG.15717	Mp6g08350	68,986	0,9991259	PTQ37010							2,628115287	0,017191916
MSTRG.4849	Mp2g05610	63,672	0,9918699	PTQ44135				70,8	Rn_06728.2	1	2,633120255	6,78943E-05

MSTRG.19134	Mp5g20940	64,94	0,9768089	PTQ37292	AT4G01210. AT4G01210	39,125	[Source:NCBI gene (formerly	AT4G01210	0,8098933				2,651726945	0,006806328
MSTRG.3205	Mp1g04220	71,319	0,996139	PTQ48553	AT4G11350. AT4G11350	44,639	(DUF604) [Source:NCBI gene (formerly	AT4G11350	0,8934911	76,864	Rn_15294.3	0,9980198	2,685909951	0,00014988
MSTRG.6007	Mp7g00660	68,493	0,9733333	PTQ39237	AT3G03341. AT3G03341	61,111	(formerly Entrezgene);Acc:6240770]	AT3G03341	1				2,69113824	8,3203E-09
MSTRG.8603	Mp3g15720	60,9		1 PTQ48825						71,295	Rn_18588.1	0,99882629	2,704626116	7,57474E-05
MSTRG.10777	Mp5g15440	54,51	0,9270073	PTQ35451									2,745477758	7,15378E-09
MSTRG.21243	Mp8g15360	44,86		1									2,749984152	0,023037705
MSTRG.7101	Mp6g19490	65,809	0,9978166	PTQ39463	AT5G41610. AT5G41610	44,51	(formerly Entrezgene);Acc:834163]	CHX18	0,808642	71,924	Rn_13524.1	0,9957492	2,751417238	0,003421181
MSTRG.13457	Mp4g17380	80,122	0,9879276	PTQ40118						89,144	Rn_02951.1	0,99790795	2,823808552	1,00204E-06
MSTRG.18240	Mp7g02370	51,115		1 PTQ33503									2,857622015	8,5274E-06
MSTRG.17890	Mp7g08260	45,763	0,9620253	PTQ29204									2,880356069	4,68785E-05
MSTRG.9413	Mp5g22720	73,805	0,9980658	PTQ46813									2,908935806	3,15646E-07
MSTRG.9851	Mp3g06960	45,798	0,9915966										2,932672743	0,001199199
MSTRG.14187	Mp6g18000	56,604	0,9237668	PTQ40650									2,933016622	0,012192247
MSTRG.21192	Mp8g16290	82,863	0,9034608	PTQ28810	AT5G03860. AT5G03860	70,101	(formerly Entrezgene);Acc:831690]	MLS	0,8807829	92,323	Rn_09720.1	0,90493601	2,938678622	0,000200525
MSTRG.3297	Mp1g11710	78,493	0,9530026	PTQ45514									2,948389006	8,01968E-05
MSTRG.16284	Mp5g09910	57,831	0,9502488	PTQ38971									2,948419468	0,000317571
MSTRG.7821	Mp3g17510	55,694	0,9269231	PTQ40536									2,965070446	0,043464388
MSTRG.17988	Mp7g00270	68,12	0,9286422	PTQ39284	AT1G64060. AT1G64060	52,453	[Source:NCBI gene (formerly	RBOF F	0,8622881				2,974349189	0,006446685
MSTRG.16895	Mp6g02720	88,546	0,9883041	PTQ41267	AT1G78570. AT1G78570	81,129	(formerly Entrezgene);Acc:844193]	RHM1	1				2,97869232	3,11456E-07
MSTRG.1236	Mp1g04490	80,632		1 PTQ48518	AT5G38200. AT5G38200	57,623	superfamily protein [Source:NCBI gene	AT5G38200	0,9449541				2,979213146	0,008980833
MSTRG.798	Mp1g01520	73,649	0,9942197	PTQ42568									2,985156904	2,65584E-09
MSTRG.18313	Mp7g19240	75,079	0,9241983		AT5G64260. AT5G64260	46,69	(formerly Entrezgene);Acc:836547]	EXL2	0,9081967				3,037317854	3,3346E-08
MSTRG.17454	Mp7g06380	90,909		1 PTQ37394	AT5G59840. AT5G59840	66,99	[Source:NCBI gene (formerly	AT5G59840	0,9490741				3,057248032	0,009829648
MSTRG.19008	Mp7g10800	68,935	0,9411765	PTQ49201									3,068455193	3,24335E-09
MSTRG.7858	Mp2g00230	68,61	0,9911111	PTQ42836									3,079178604	7,15378E-09
MSTRG.14894	Mp6g15340	86,279	0,9839817	PTQ37575	AT4G28550. AT4G28550	48,086	protein [Source:NCBI gene (formerly	AT4G28550	0,9646226				3,085607241	6,67925E-05
MSTRG.3610	Mp1g23000	62,525	0,9388323	PTQ36277	AT1G28440. AT1G28440	38,215	Entrezgene);Acc:839742]	HSL1	0,9718876	76,062	Rn_16604.1	0,89119171	3,165418595	0,003130516
MSTRG.255	Mp1g22210	73,481		1 PTQ50673									3,172249324	1,40289E-06
MSTRG.7160	Mp2g24070	80,319		1 PTQ35717									3,194565041	0,000885003
MSTRG.6400	Mp2g17330	79,394		1 PTQ32819	AT3G17020. AT3G17020	45,806	superfamily protein [Source:NCBI gene	AT3G17020	0,9447853	78,528	Rn_07371.1	1	3,21000985	0,00108476
MSTRG.19017	Mp5g11430	61,741	0,8688525										3,236160492	0,014040543
MSTRG.16108	Mp6g10520	71,883		1 PTQ45035						80,198	Rn_00410.2	1	3,327775294	2,27084E-06
MSTRG.7007	Mp2g11400	78,901	0,9911032	PTQ43801	AT3G21720. AT3G21720	66,667	Entrezgene);Acc:821726]	ICL	0,9583333	74,265	Rn_01651.1	0,81381381	3,34097171	0,002587856
MSTRG.17665	Mp5g09910	51,687	0,9038143	PTQ38971									3,356753584	0,04605638
MSTRG.6869	Mp2g15660	71,044	0,9715847	PTQ34224	AT2G32810. AT2G32810	56,655	(formerly Entrezgene);Acc:817842]	BGAL9	0,9560316	76,464	Rn_07778.2	0,97145993	3,439998828	7,51221E-07
MSTRG.7963	Mp3g22860	68,132	0,8380952	PTQ43547						72,857	Rn_18453.1	0,99526066	3,444851128	8,75655E-08
MSTRG.19935	Mp8g07630	52,973		1 PTQ45782									3,451242294	0,029022187
MSTRG.7687	Mp3g05550	80,147	0,9890909	PTQ47982	AT1G71790. AT1G71790	64,228	capping protein Capz superfamily	CPB	0,9570313				3,4524494	0,007719762
MSTRG.21292	Mp8g05490	89,202	0,9530201	PTQ34323	AT2G36530. AT2G36530	83,059	Entrezgene);Acc:818226]	LOS2	0,954955				3,493841092	0,014013808
MSTRG.6023	Mp2g16060	86,587	0,9039616	PTQ30639	AT4G02280. AT4G02280	69,421	(formerly Entrezgene);Acc:828081]	SUS3	0,8974042				3,507455631	6,1211E-13
MSTRG.11799	Mp4g05880	75,897		1 PTQ33559	AT5G13210. AT5G13210	46,667	UCP015417, vWA [Source:NCBI gene	AT5G13210	1	82,446	Rn_01945.1	1	3,515404353	0,000132986
MSTRG.3881	Mp5g16770	52,745	0,8864469	PTQ30970						66,253	Rn_17761.1	0,82556131	3,573308716	1,62619E-07
MSTRG.16143	Mp6g02620	61,622	0,987976	PTQ41257	AT4G27410. AT4G27410	59,009	transcriptional regulator superfamily protein	RD26	0,7037037				3,583137326	0,002253426
MSTRG.15008	Mp6g08170	71,717	0,9314421	PTQ37035						73,98	Rn_13961.1	0,975	3,613033498	0,002206449

MSTRG.4640	Mp2g08350	91,231	1	PTQ45322	AT5G02500. AT5G02500	87,25	[Source:NCBI gene (formerly	HSC70-1	1	91,512	Rn_07667.1	1	3,620599908	0,001699244
MSTRG.1936	Mp5g15730	72,603	0,992016	PTQ35420	AT3G61320. AT3G61320	52,137	(formerly Entrezgene);Acc:825304]	AT3G61320	0,8560976				3,668011824	1,11742E-06
MSTRG.13066	Mp4g20090	68,393	0,9543568	PTQ31021	AT2G25800. AT2G25800	38,95	gene (formerly Entrezgene);Acc:817122]	AT2G25800	0,9078014				3,705580821	0,000229499
MSTRG.15740	Mp6g06750	91,292	1	PTQ28117	AT5G37600. AT5G37600	81,586	(formerly Entrezgene);Acc:833738]	GSR 1	0,991573				3,724385861	0,028811751
MSTRG.19333	Mp7g16060	70,726	0,9555723		AT1G02520. AT1G02520	54,857	(formerly Entrezgene);Acc:839353]	ABCB11	0,9671362	75,931	Rn_12596.1	0,99850858	3,840821233	2,18332E-07
MSTRG.1452	Mp1g21170	81,102	1	PTQ50501	AT1G49340. AT1G49340	57,143	protein [Source:NCBI gene (formerly	ATPI4K ALPH,	0,8648915	89,727	Rn_14679.1	0,88222923	3,887368623	0,034192113
MSTRG.11472	Mp6g14980	50,418	0,8984674	PTQ37528	AT4G29130. AT4G29130	42,609	Entrezgene);Acc:829034]	HXK1	0,9092742				3,941224344	0,001647101
MSTRG.7855	Mp3g09940	61,979	0,9876977	PTQ33813	AT2G21070. AT2G21070	39,201	(formerly Entrezgene);Acc:816642]	FIO1	0,9565217				3,94701624	0,000649218
MSTRG.15205	Mp6g12800	73,937	0,9653333	PTQ37141						80,581	Rn_13226.1	1	4,000378062	0,00207339
MSTRG.7555	Mp3g17050	57,066	0,9333895	PTQ40600	AT5G63930. AT5G63930	39,048	protein [Source:NCBI gene (formerly	AT5G63930	0,9591652	64,312	Rn_17985.1	0,88301282	4,064487059	5,34203E-06
MSTRG.20469	Mp8g01390	59,355	0,9810127	PTQ36376						48,387	Rn_10167.1	0,81151832	4,101121549	0,044307645
MSTRG.9052	Mp3g13820	53,859	0,9882155		AT1G12110. AT1G12110	39,123	(formerly Entrezgene);Acc:837763]	NRT1.1	0,9542373				4,107274968	9,12953E-10
MSTRG.9652	Mp3g05380	65,169	1	PTQ47959									4,111679936	0,047494208
MSTRG.15871	Mp6g09020	73,016	0,842246	PTQ36922						78,095	Rn_00202.2	0,84366577	4,158661594	2,36118E-09
MSTRG.6004	Mp2g07170	80,769	0,9380734	PTQ45180									4,163780346	0,000181981
MSTRG.19136	Mp7g17960	57,326	0,8724374	PTQ32179									4,238680791	0,00665373
MSTRG.13206	Mp4g10060	80,218	0,9931694	PTQ29977	AT2G37040. AT2G37040	64,799	(formerly Entrezgene);Acc:818280]	PAL1	0,9586207				4,366006717	0,00553706
evm.TU.chr8.2	Mp3g15330	56,863	0,9161677	PTQ48876	AT5G05340. AT5G05340	48,675	gene (formerly Entrezgene);Acc:830416]	PRX52	0,9228395				4,401647342	0,018927759
MSTRG.17090	Mp7g02500	62,043	0,9945652	PTQ33490						71,106	Rn_12448.1	0,99891304	4,404898515	6,78943E-05
MSTRG.9233	Mp3g15610	76,708	0,9757576	PTQ48838	AT3G07720. AT3G07720	53,481	protein [Source:NCBI gene (formerly	AT3G07720	0,9544073				4,439773651	2,24001E-15
MSTRG.8359	Mp3g03520	64,198	0,8202532	PTQ44097	AT4G02500. AT4G02500	47,246	(formerly Entrezgene);Acc:827940]	XT2	0,7440347	70,219	Rn_18332.1	0,81585678	4,48314365	0,011375433
MSTRG.17666	Mp5g09910	54,651	0,9850746	PTQ38971						61,921	Rn_03868.1	0,99173554	4,500537784	0,000116347
MSTRG.20013	Mp8g05080	78,736	0,972067		AT2G30490. AT2G30490	64,752	(formerly Entrezgene);Acc:817599]	C4H	0,9960396	85,495	Rn_09318.1	1	4,527710877	2,72831E-07
MSTRG.1350	Mp3g01290	41,667	0,8229885	PTQ47717	AT2G38240. AT2G38240	35,843	oxygenase superfamily protein [Source:NCBI	AT2G38240	0,8951841	82,946	Rn_14997.1	0,99220779	4,57564701	1,81674E-08
MSTRG.10832	Mp4g08700	58,824	0,9963702	PTQ28677						55,668	Rn_02272.1	0,81869688	4,614034969	0,000143168
MSTRG.997	Mp5g02020	70,933	0,9543011	PTQ28496	AT5G25770. AT5G25770	46,779	[Source:NCBI gene (formerly	AT5G25770	0,9694444	77,322	Rn_17785.1	0,99725275	4,691162246	3,84608E-05
MSTRG.657	Mp1g08490	57,718	0,9591837	PTQ41111									4,728309881	5,98463E-09
MSTRG.9838	Mp3g13290	71,218	1	PTQ38677									4,890875585	0,001045816
MSTRG.7565	Mp3g19060	85,34	0,9685157		AT4G37870. AT4G37870	75,399	[Source:NCBI gene (formerly	PCK1	0,928465				5,027621533	1,06895E-10
MSTRG.12889	Mp4g14730	77,46	1	PTQ35533	AT2G20630. AT2G20630	50,37	gene (formerly Entrezgene);Acc:816590]	PIA1	0,9462366	85,669	Rn_02878.1	0,99680511	5,07923818	1,47217E-21
MSTRG.7898	Mp4g20920	46,462	0,9147727	PTQ32246									5,119757063	2,25892E-05
MSTRG.10789	Mp4g01700	64,865	0,8354839	PTQ32481									5,152376725	0,008068788
MSTRG.8990	Mp3g15330	56,798	0,991018	PTQ48876	AT5G06720. AT5G06720	50,467	Entrezgene);Acc:830561]	PA2	0,958209				5,196939456	0,000649218
MSTRG.8344	Mp3g18630	77,311	0,9978947		AT2G38960. AT2G38960	65,479	[Source:NCBI gene (formerly	ERO2	0,7690678				5,228850311	4,15974E-08
MSTRG.13464	Mp4g17360	84,286	0,9882353	PTQ40116						80,58	Rn_02217.1	0,83646617	5,45523102	3,96103E-08
MSTRG.17979	Mp7g02500	57,844	0,9978261	PTQ33490						65,278	Rn_12448.1	0,99891304	5,822174182	0,00739868

**Supplementary Table 2. Differentially expressed non-homology RNAs and long noncoding RNAs in *Riccia fluitans* thallus after high-dose micro-/nanoplastic treatment**

Row.names	baseMean	log2FoldChange	pvalue	padj	CTR_1	CTR_2	CTR_3	CTR_4	CTR_5	HIGH_1	HIGH_2	HIGH_3	gene_id	gene_coding
MSTRG.10024	7.7032559943682	3.09023540431398	0.0003742	0.0100344	2.8137248	2.3544829	3.5920397	0	0	7.3429088	28.693539	16.829352	MSTRG.10	Non-coding
MSTRG.10091	32.2903101409044	-1.74407123839111	0.0011427	0.0235718	64.403035	54.153107	34.723050	23.080089	42.917387	12.238181	7.1733847	19.634244	MSTRG.10	Coding
MSTRG.10218	232.764011343939	3.26687448794046	2.2205708	2.9219649	54.086044	44.735175	130.51077	23.080089	20.028114	215.39199	681.47155	692.80834	MSTRG.10	Non-coding
MSTRG.10258	26.347841391209	-1.74080485366473	0.0006152	0.0146443	28.449884	40.026209	33.525704	34.620134	42.917387	4.8952725	17.933461	8.4146762	MSTRG.10	Non-coding
MSTRG.10330	36.7092794490616	-1.93511310387568	0.0001046	0.0037913	42.518508	68.280004	58.669982	54.815212	28.611591	19.581090	7.1733847	14.024460	MSTRG.10	Non-coding
MSTRG.10336	42.4253342240249	-1.75184087380891	0.0006172	0.0146599	47.208050	71.811728	73.038140	40.390156	54.362024	29.371635	3.5866923	19.634244	MSTRG.10	Coding
MSTRG.10371	17.1689597265618	1.80323076236212	0.0021622	0.0369446	5.0021774	5.8862072	4.7893862	17.310067	14.305795	26.923999	32.280231	30.853812	MSTRG.10	Coding
MSTRG.1039	67.1655963090095	2.5009578191188	0.0002720	0.0079463	7.1906301	3.5317243	22.749584	54.815212	37.195069	90.562542	161.40115	159.87884	MSTRG.10	Non-coding
MSTRG.10702	24.4194312770652	1.72648324461437	0.0001302	0.0045183	12.818079	17.658621	11.973465	11.540044	11.444636	36.714544	28.693539	64.512517	MSTRG.10	Coding
MSTRG.10718	30.8044548029393	4.23690539575349	4.6437211	7.5944743	0.9379082	1.1772414	5.9867328	8.6550336	5.7223183	36.714544	125.53423	61.707625	MSTRG.10	Coding
MSTRG.10723	31.3504820303647	2.1929345039965	1.7533067	1.7762703	7.8159023	14.126897	15.565505	17.310067	14.305795	53.847998	71.733847	56.097841	MSTRG.10	Coding
MSTRG.1085	39.3353584550435	2.43394564208392	0.0001135	0.0040750	6.8779940	8.2406902	28.736317	11.540044	20.028114	24.476362	71.733847	143.04949	MSTRG.10	Non-coding
MSTRG.1086	90.4109793755646	2.27602429843088	2.1823393	0.0011054	18.445529	20.013104	49.091209	28.850112	71.528979	70.981452	225.96162	238.41582	MSTRG.10	Non-coding
MSTRG.11069	103.849778455515	1.15427314934611	0.0007351	0.0168995	82.848564	93.002075	67.051408	60.585235	51.500865	102.80072	154.22777	218.78158	MSTRG.11	Coding
MSTRG.11082	6.02457171827278	3.82302805062873	6.5427707	0.0026133	1.2505443	0	1.1973465	0	2.8611591	7.3429088	21.520154	14.024460	MSTRG.11	Non-coding
MSTRG.11137	11.2582134190813	2.94504088530364	0.0003762	0.0100625	1.5631804	1.1772414	1.1973465	8.6550336	5.7223183	14.685817	43.040308	14.024460	MSTRG.11	Non-coding
MSTRG.11267	139.020023477381	1.26589502264156	0.0006716	0.0156898	65.966215	64.748280	74.235487	132.71051	120.16868	276.58290	240.30839	137.43971	MSTRG.11	Coding
MSTRG.11271	65.1693040370033	1.13432288748803	0.0005790	0.0140138	53.460772	47.089658	51.485902	31.735123	40.056228	68.533816	111.18746	117.80546	MSTRG.11	Coding
MSTRG.11285	45.8348172624639	1.90686296778209	0.0015545	0.0289852	15.319168	3.5317243	19.157545	40.390156	37.195069	68.533816	104.01407	78.536978	MSTRG.11	Coding
MSTRG.1145	49.407804783259	1.27622434554888	0.0007538	0.0171919	42.205872	25.899312	32.328357	25.965100	34.333910	68.533816	53.800385	112.19568	MSTRG.11	Non-coding
MSTRG.11468	31.1488484563498	1.72746625411363	0.0008686	0.0192352	11.880171	11.772414	21.552238	11.540044	28.611591	31.819271	39.453616	92.561438	MSTRG.11	Coding
MSTRG.11529	347.286918637003	-1.39953732893838	6.4267836	0.0004000	452.38442	351.99519	308.91541	637.58747	515.00865	154.20108	150.64108	207.56201	MSTRG.11	Coding
MSTRG.11544	6.98568276212579	4.31571664898359	0.0029679	0.0463350	0	0	0	0	5.7223183	9.7905451	17.933461	22.439136	MSTRG.11	Non-coding
MSTRG.11644	4.17404205253472	3.44920899388098	0.0028153	0.0443933	1.2505443	0	2.3946931	0	0	9.7905451	14.346769	5.6097841	MSTRG.11	Non-coding
MSTRG.1165	174.405918423056	1.97542134075496	4.4378483	5.3420283	50.959683	68.280004	112.55057	75.010291	111.58520	215.39199	340.73577	420.73381	MSTRG.11	Coding
MSTRG.11708	44.4000288617365	-1.60061250214702	0.0002512	0.0075540	65.653579	74.166211	62.262021	37.505145	57.223183	19.581090	10.760077	28.048920	MSTRG.11	Coding
MSTRG.11812	7.1059498741987	3.63719043939838	0.0028236	0.0444643	1.5631804	0	2.3946931	0	2.8611591	0	10.760077	39.268489	MSTRG.11	Non-coding
MSTRG.11813	33.6156995297552	2.4279602460527	0.0001189	0.0042299	16.257076	12.949656	23.946931	2.8850112	5.7223183	24.476362	78.907232	103.78100	MSTRG.11	Coding
MSTRG.11875	62.8392818253693	2.19381534367046	5.4498055	0.0022534	23.135070	38.848968	37.117743	5.7700224	28.611591	51.400362	132.70761	185.12287	MSTRG.11	Non-coding
MSTRG.11950	4.82078746392761	4.24459201049335	0.0018683	0.0333156	0	0	1.1973465	0	2.8611591	4.8952725	7.1733847	22.439136	MSTRG.11	Non-coding
MSTRG.11963	110.319483428115	1.93105593279849	4.5790448	0.0002978	84.724381	60.039314	59.867328	31.735123	28.611591	124.82945	240.30839	252.44028	MSTRG.11	Coding
MSTRG.12038	27.4512134207264	3.59507864776226	6.8746784	7.0593899	3.7516331	4.7089658	5.9867328	5.7700224	8.5834775	48.952725	71.733847	70.122301	MSTRG.12	Coding
MSTRG.12059	51.7552554297258	-1.79299663407909	0.0005227	0.0130960	74.720026	76.520694	124.52404	43.275168	34.333910	14.685817	17.933461	28.048920	MSTRG.12	Coding
MSTRG.12097	196.998272809262	2.13339398702031	3.7813324	0.0016901	56.899769	91.824833	102.97180	80.780313	103.00173	75.876725	444.74985	619.88114	MSTRG.12	Coding
MSTRG.12199	14.3472000940391	-4.14114458099756	0.0002083	0.0065342	23.135070	24.722070	13.170812	25.965100	22.889273	4.8952725	0	0	MSTRG.12	Coding
MSTRG.12294	26.1760362473606	1.77227504642339	0.0011754	0.0240291	9.3790828	14.126897	4.7893862	20.195078	22.889273	29.371635	60.973770	47.683165	MSTRG.12	Coding
MSTRG.12327	21.0319704392732	2.82805938647348	3.2282122	0.0014841	4.0642692	4.7089658	9.5787725	14.425056	0	24.476362	71.733847	39.268489	MSTRG.12	Coding
MSTRG.12345	26.0583452876613	2.75320710473636	4.5188207	0.0019447	15.631804	7.0634487	8.3814260	2.8850112	5.7223183	17.133454	39.453616	112.19568	MSTRG.12	Non-coding

MSTRG.12423	186.867735389968	1.58551379607224	0.0008979	0.0197316	49.396502	52.975865	116.14261	184.64071	134.47448	181.12508	433.98977	342.19683	MSTRG.12	Coding
MSTRG.1256	67.175085493971	-1.085013839767	0.0019847	0.0349565	85.037017	101.24276	58.669982	89.435347	82.973616	48.952725	43.040308	28.048920	MSTRG.12	Non-coding
MSTRG.12620	20.1454734241869	-2.04625048795037	0.0016132	0.0297675	14.381260	31.785519	39.512436	25.965100	28.611591	7.3429088	10.760077	2.8048920	MSTRG.12	Non-coding
MSTRG.12644	37.0012575006266	2.1893607487542	0.0002004	0.0064095	7.5032662	5.8862072	16.762852	31.735123	20.028114	63.638543	111.18746	39.268489	MSTRG.12	Coding
MSTRG.12694	83.3978751450318	1.66240120256823	1.5187675	0.0001163	50.334411	45.912416	65.854061	34.620134	31.472751	105.24836	154.22777	179.51309	MSTRG.12	Non-coding
MSTRG.12900	7.41606322295415	4.98171970372025	6.2353852	0.0025223	0	0	1.1973465	2.8850112	0	4.8952725	25.106846	25.244028	MSTRG.12	Non-coding
MSTRG.12973	58.020279551379	1.48472613479677	3.8413753	0.0016992	36.891059	32.962760	46.696516	25.965100	28.611591	93.010179	132.70761	67.317409	MSTRG.12	Coding
MSTRG.13	82.1801971903671	1.02561413944151	0.0009545	0.0206191	63.465127	57.684831	61.064675	57.700224	57.223183	70.981452	143.46769	145.85438	MSTRG.13	Non-coding
MSTRG.13071	149.860891328447	-1.71789403800099	1.2382012	1.3124932	253.54787	233.09380	170.02321	152.90559	206.00346	48.952725	50.213693	84.146762	MSTRG.13	Coding
MSTRG.13135	5.8604942128477	3.13882486765287	0.0008676	0.0192352	0.6252721	1.1772414	1.1973465	0	5.7223183	9.7905451	14.346769	14.024460	MSTRG.13	Non-coding
MSTRG.13182	4.52356451888711	3.88894584641907	0.0011313	0.0233786	0.3126360	1.1772414	0	0	2.8611591	14.685817	14.346769	2.8048920	MSTRG.13	Non-coding
MSTRG.13218	89.4090363501278	2.31885077662771	0.0001763	0.0057198	18.132893	58.862072	58.669982	8.6550336	34.333910	53.847998	233.13500	249.63539	MSTRG.13	Coding
MSTRG.1323	28.9120015216253	3.23535555337459	3.8740619	0.0016992	1.8758165	1.1772414	8.3814260	14.425056	11.444636	19.581090	53.800385	120.61035	MSTRG.13	Non-coding
MSTRG.13265	520.263222281239	4.88037732580672	4.0621397	3.8460785	10.004354	8.2406902	107.76119	25.965100	71.528979	428.33635	2026.4812	1483.7879	MSTRG.13	Non-coding
MSTRG.13291	10.0927211632899	2.73530615866988	0.0029786	0.0463350	0.3126360	1.1772414	4.7893862	8.6550336	2.8611591	9.7905451	25.106846	28.048920	MSTRG.13	Coding
MSTRG.13294	50.0493424200377	2.17269295190976	2.9460393	0.0013765	5.6274496	17.658621	32.328357	28.850112	25.750432	102.80072	100.42738	86.951654	MSTRG.13	Coding
MSTRG.13316	7.66709297585889	6.12493278691019	2.9868474	0.0002072	0	0	0	0	2.8611591	7.3429088	28.693539	22.439136	MSTRG.13	Non-coding
MSTRG.13453	112.42125796002	1.24627913231836	0.0005719	0.0139023	100.66882	93.002075	76.630180	46.160179	51.500865	178.67744	125.53423	227.19625	MSTRG.13	Coding
MSTRG.13470	26.4946564947531	-2.52180578138922	1.3262997	0.0007162	43.143780	50.621382	33.525704	34.620134	28.611591	12.238181	3.5866923	5.6097841	MSTRG.13	Coding
MSTRG.13506	8.83386394156974	3.72097152829174	0.0009860	0.0210603	2.5010887	0	2.3946931	0	2.8611591	2.4476362	7.1733847	53.292949	MSTRG.13	Non-coding
MSTRG.13507	191.322293495067	1.92261404505136	0.0001310	0.0045318	92.852919	111.83793	158.04974	40.390156	62.945502	151.75345	301.28216	611.46647	MSTRG.13	Non-coding
MSTRG.13511	6.68267244830812	4.13658938443479	0.0021818	0.0370043	0.9379082	0	1.1973465	0	2.8611591	0	3.5866923	44.878273	MSTRG.13	Non-coding
MSTRG.13570	109.476941180148	1.10587710747489	5.7864964	0.0023743	85.662289	81.229660	58.669982	69.240268	85.834775	200.70617	154.22777	140.24460	MSTRG.13	Non-coding
MSTRG.13590	18.7187515567982	-2.69526464029838	0.0015545	0.0289852	16.882349	30.608277	21.552238	25.965100	40.056228	14.685817	0	0	MSTRG.13	Non-coding
MSTRG.13618	116.657167817302	2.45323709697352	4.3050546	1.0952058	34.702606	52.975865	47.893862	34.620134	48.639706	127.27708	197.26808	389.87999	MSTRG.13	Non-coding
MSTRG.13627	32.9510969809466	-2.4049681213794	3.8615379	0.0016992	48.458594	62.393797	26.341624	43.275168	54.362024	19.581090	3.5866923	5.6097841	MSTRG.13	Non-coding
MSTRG.13675	4.75458492395084	-4.50589359618712	0.0023846	0.0392305	9.3790828	2.3544829	11.973465	2.8850112	11.444636	0	0	0	MSTRG.13	Coding
MSTRG.13974	67.3985678389295	-1.18911431914831	0.0022761	0.0380672	100.35618	102.42000	65.854061	86.550336	71.528979	44.057453	17.933461	50.488057	MSTRG.13	Coding
MSTRG.14050	48.2079189573675	1.43320218238771	0.0001177	0.0042131	24.385615	34.140002	34.723050	37.505145	17.166955	56.295634	86.080617	95.366330	MSTRG.14	Coding
MSTRG.14158	15.8174722770251	2.96977033951821	3.0712589	0.0002118	7.8159023	2.3544829	4.7893862	2.8850112	2.8611591	17.133454	46.627001	42.073381	MSTRG.14	Coding
MSTRG.14168	58.4905068156298	2.66200287123583	9.1202735	0.0005326	11.880171	20.013104	23.946931	14.425056	28.611591	19.581090	136.29431	213.17179	MSTRG.14	Coding
MSTRG.14209	72.7444431086125	4.33610462765936	7.3997798	7.0593899	6.5653579	10.595173	5.9867328	11.540044	11.444636	51.400362	150.64108	333.78215	MSTRG.14	Non-coding
MSTRG.14246	399.618793100181	4.72027637003845	8.8749321	7.2056896	9.0664467	5.8862072	81.419566	23.080089	71.528979	350.01198	1517.1708	1138.7861	MSTRG.14	Non-coding
MSTRG.14247	85.3323591902569	3.04163376866251	5.8573002	0.0023947	3.7516331	7.0634487	26.341624	40.390156	40.056228	36.714544	326.38900	201.95222	MSTRG.14	Non-coding
MSTRG.1425	116.23533656014	1.41703800600567	0.0006608	0.0155355	34.077334	49.444141	93.393032	103.86040	80.112457	129.72472	200.85477	238.41582	MSTRG.14	Non-coding
MSTRG.14306	59.9667883980806	1.97476572086068	2.6868004	0.0012816	15.631804	25.899312	21.552238	54.815212	28.611591	61.190907	154.22777	117.80546	MSTRG.14	Coding
MSTRG.14396	19.48816117189	3.14001429617924	0.0031681	0.0484877	5.6274496	0	15.565505	2.8850112	0	9.7905451	32.280231	89.756546	MSTRG.14	Non-coding
MSTRG.14630	24.3962476829159	3.82406912197516	6.3642524	5.6920283	3.1263609	0	4.7893862	8.6550336	5.7223183	17.133454	96.840694	58.902733	MSTRG.14	Coding
MSTRG.14834	258.568871114078	1.63176543507337	1.5873600	1.0689469	138.81042	170.70001	148.47097	118.28545	145.91911	403.85998	502.13693	440.36805	MSTRG.14	Coding
MSTRG.14898	47.4722843110472	2.13617227468522	1.6284372	0.0001226	16.882349	22.367587	32.328357	25.965100	5.7223183	100.35308	100.42738	75.732085	MSTRG.14	Non-coding

MSTRG.14910	222.440998820715	2.51626186360889	7.0999906	1.6587896	61.589310	57.684831	51.485902	126.94049	108.72404	249.65890	534.41716	589.02733	MSTRG.14 Coding
MSTRG.15016	23.1467384294139	2.46304118880503	6.5250528	0.0026133	5.0021774	7.0634487	7.1840794	8.6550336	17.166955	19.581090	89.667309	30.853812	MSTRG.15 Coding
MSTRG.15029	92.4779361416288	1.20389140486586	0.0002949	0.0084196	55.649224	54.153107	96.985072	51.930201	51.500865	115.03890	143.46769	171.09841	MSTRG.15 Non-coding
MSTRG.1506	50.5839677067897	3.42512827285316	1.2352784	1.3124932	15.319168	17.658621	13.170812	2.8850112	2.8611591	31.819271	147.05438	173.90330	MSTRG.15 Non-coding
MSTRG.15132	58.3801861261031	-1.37408383885189	0.0013271	0.0262861	99.418277	68.280004	51.485902	98.090380	60.084342	46.505089	17.933461	25.244028	MSTRG.15 Coding
MSTRG.15247	9.93335709986233	3.3589195943649	0.0005997	0.0143940	0.6252721	0	1.1973465	2.8850112	8.5834775	12.238181	28.693539	25.244028	MSTRG.15 Non-coding
MSTRG.15263	4.21075236604528	-4.35107813762426	0.0025139	0.0407853	10.316991	7.0634487	4.7893862	8.6550336	2.8611591	0	0	0	MSTRG.15 Non-coding
MSTRG.1531	26.8888303425787	1.2556672757607	0.0031993	0.0487465	22.197162	15.304138	13.170812	11.540044	25.750432	44.057453	46.627001	36.463596	MSTRG.15 Non-coding
MSTRG.15384	25.9305777982556	1.82298213682863	0.0023746	0.0391708	9.6917189	5.8862072	17.960198	5.7700224	28.611591	24.476362	64.560463	50.488057	MSTRG.15 Coding
MSTRG.15402	61.9435443711648	2.37764924369109	1.9708266	0.0010209	31.576245	38.848968	27.538971	5.7700224	14.305795	51.400362	157.81446	168.29352	MSTRG.15 Coding
MSTRG.15407	72.8978682057443	2.10805597487454	1.0643439	3.2931376	26.574067	27.076553	41.907130	25.965100	42.917387	112.59126	143.46769	162.68374	MSTRG.15 Non-coding
MSTRG.15443	6.78155588318631	-5.01834251415838	0.0004803	0.0121922	4.3769053	24.722070	10.776119	8.6550336	5.7223183	0	0	0	MSTRG.15 Non-coding
MSTRG.15489	14.3292326828031	4.68151352253114	1.0404922	1.5469552	0.9379082	1.1772414	2.3946931	0	2.8611591	7.3429088	46.627001	53.292949	MSTRG.15 Non-coding
MSTRG.15494	88.3385821267164	-2.3251967281943	3.2757582	4.0761826	125.36707	191.89035	137.69485	100.97539	74.390138	24.476362	32.280231	19.634244	MSTRG.15 Non-coding
MSTRG.15508	17.8607989626715	2.95748414247524	0.0002402	0.0072964	1.5631804	2.3544829	13.170812	2.8850112	5.7223183	17.133454	21.520154	78.536978	MSTRG.15 Non-coding
MSTRG.1571	310.462754578185	-1.00691806149363	0.0011030	0.0230010	449.57070	502.68210	371.17743	276.96107	309.00519	252.10653	139.88100	182.31798	MSTRG.15 Non-coding
MSTRG.15997	108.958102856118	4.14019812197804	7.9327214	3.2433498	14.693896	22.367587	9.5787725	11.540044	17.166955	41.609816	258.24185	496.46589	MSTRG.15 Non-coding
MSTRG.16001	5.90644453787889	3.9615003138447	2.3610877	0.0011650	0.9379082	1.1772414	0	0	2.8611591	14.685817	10.760077	16.829352	MSTRG.16 Coding
MSTRG.16103	314.741021242418	1.54405821377647	1.5322793	0.0008158	94.728736	128.31931	191.57545	250.99597	254.64316	565.40398	502.13693	530.12460	MSTRG.16 Non-coding
MSTRG.16110	9.0648076168331	-3.51983157334874	0.0031782	0.0485774	10.942263	9.4179316	22.749584	8.6550336	17.166955	0	3.5866923	0	MSTRG.16 Coding
MSTRG.16157	3.33430563421648	4.08040966481124	0.0011743	0.0240291	0.6252721	0	1.1973465	0	0	4.8952725	14.346769	5.6097841	MSTRG.16 Non-coding
MSTRG.16206	44.2507405759657	-2.0517759723044	1.0403754	0.0005800	68.467304	68.280004	34.723050	57.700224	80.112457	17.133454	10.760077	16.829352	MSTRG.16 Non-coding
MSTRG.16271	53.0820595315971	-2.70557033563999	2.2499684	0.0011198	64.715671	90.647592	41.907130	92.320358	97.279412	29.371635	0	8.4146762	MSTRG.16 Coding
MSTRG.16373	57.8397399340817	-1.66201881798257	1.0437429	0.0005800	83.473837	77.697936	52.683249	77.895302	97.279412	26.923999	21.520154	25.244028	MSTRG.16 Coding
MSTRG.16407	122.872863940034	1.77847685316272	9.5776017	2.1498898	51.272319	57.684831	87.406299	69.240268	57.223183	188.46799	208.02815	263.65985	MSTRG.16 Non-coding
MSTRG.16496	14.1191468094925	-2.71648361978332	0.0006511	0.0154025	22.509798	27.076553	17.960198	17.310067	17.166955	7.3429088	3.5866923	0	MSTRG.16 Coding
MSTRG.16514	35.0679381793218	-2.31060069508571	0.0008801	0.0194363	33.139425	65.925521	45.499169	83.665324	22.889273	9.7905451	0	19.634244	MSTRG.16 Non-coding
MSTRG.16583	23.4102692493216	-1.62406896735706	0.0020604	0.0357912	27.511976	28.253794	35.920397	34.620134	28.611591	19.581090	7.1733847	5.6097841	MSTRG.16 Coding
MSTRG.16628	18.1796648332076	-2.06889515087107	0.0027253	0.0433939	13.443352	27.076553	26.341624	34.620134	25.750432	9.7905451	0	8.4146762	MSTRG.16 Non-coding
MSTRG.16648	827.631045393801	4.42136301569224	1.3225926	1.0094026	42.518508	36.494485	213.12768	51.930201	134.47448	790.58652	2973.3679	2378.5484	MSTRG.16 Coding
MSTRG.16749	57.5859012832557	2.2389664022543	2.2006141	0.0011098	28.449884	15.304138	20.354891	17.310067	40.056228	31.819271	136.29431	171.09841	MSTRG.16 Coding
MSTRG.1679	190.502927957739	2.1799144420228	1.0215260	0.0005732	43.769053	36.494485	75.432834	124.05548	134.47448	183.57272	401.70954	524.51481	MSTRG.16 Coding
MSTRG.16811	24.3870440958924	-2.28280585020347	2.9816092	0.0013819	30.638337	41.203451	35.920397	31.735123	34.333910	4.8952725	10.760077	5.6097841	MSTRG.16 Non-coding
MSTRG.16936	55.854772881158	2.00383036281551	0.0018445	0.0330465	17.194985	3.5317243	23.946931	49.045190	40.056228	56.295634	161.40115	95.366330	MSTRG.16 Non-coding
MSTRG.1703	31.606305920136	2.25034346969136	3.7943556	0.0016901	7.5032662	11.772414	16.762852	14.425056	17.166955	22.028726	53.800385	109.39079	MSTRG.17 Non-coding
MSTRG.17266	52.3918433560299	1.30952873522092	0.0009417	0.0204581	28.449884	42.380692	41.907130	14.425056	40.056228	90.562542	96.840694	64.512517	MSTRG.17 Coding
MSTRG.17758	41.7802755589602	1.93285850993852	0.0001547	0.0052255	20.321346	21.190346	20.354891	34.620134	5.7223183	44.057453	64.560463	123.41525	MSTRG.17 Coding
MSTRG.17805	11.3295609740026	-3.11753223380014	0.0024693	0.0402695	20.008709	21.190346	19.157545	5.7700224	17.166955	7.3429088	0	0	MSTRG.17 Coding
MSTRG.17907	15.2789365142329	-2.89984829430114	0.0006530	0.0154146	34.077334	30.608277	21.552238	11.540044	14.305795	7.3429088	0	2.8048920	MSTRG.17 Coding
MSTRG.17916	34.0023861957077	1.6204391698881	8.0547871	0.0004827	18.132893	14.126897	19.157545	25.965100	20.028114	56.295634	53.800385	64.512517	MSTRG.17 Coding

MSTRG.17940	185.382853715502	-1.20033285821274	0.0003206	0.0090202	335.14589	182.47242	159.24709	262.53601	234.61505	127.27708	100.42738	81.341870	MSTRG.17	Coding
MSTRG.18029	16.5709058320479	5.66293973975714	1.7173083	3.2083738	0.3126360	0	3.5920397	0	0	22.028726	64.560463	42.073381	MSTRG.18	Non-coding
MSTRG.18100	73.223420124585	1.2715334088552	5.4721551	0.0022534	50.334411	38.848968	41.907130	37.505145	71.528979	119.93417	121.94754	103.78100	MSTRG.18	Coding
MSTRG.18108	3.84678081897088	5.60752229260846	2.5974290	0.0012599	0.3126360	0	0	0	0	4.8952725	14.346769	11.219568	MSTRG.18	Non-coding
MSTRG.18126	62.2402170710826	-3.48862099687903	2.1387920	1.1129496	110.36054	114.19242	77.827527	69.240268	100.14057	9.7905451	10.760077	5.6097841	MSTRG.18	Coding
MSTRG.18156	4.62096906350044	4.19856025020686	0.0013017	0.0258491	0	0	1.1973465	0	2.8611591	7.3429088	14.346769	11.219568	MSTRG.18	Non-coding
MSTRG.18158	45.2442506074553	1.52748917890022	0.0007898	0.0179307	21.571890	15.304138	26.341624	51.930201	20.028114	51.400362	96.840694	78.536978	MSTRG.18	Non-coding
MSTRG.18161	4.62096906350044	4.19856025020686	0.0013017	0.0258491	0	0	1.1973465	0	2.8611591	7.3429088	14.346769	11.219568	MSTRG.18	Non-coding
MSTRG.18265	83.5318877149109	1.49238277179829	0.0001006	0.0036938	50.021774	37.671726	82.616913	40.390156	37.195069	93.010179	150.64108	176.70820	MSTRG.18	Non-coding
MSTRG.18293	159.390888175671	-1.30914013521183	3.3743405	0.0015390	162.88340	162.45932	245.45604	279.84608	177.39186	80.771997	68.147155	98.171222	MSTRG.18	Coding
MSTRG.18394	12.6082489822775	2.5084746835576	0.0010085	0.0214376	8.4411745	5.8862072	3.5920397	2.8850112	0	44.057453	10.760077	25.244028	MSTRG.18	Non-coding
MSTRG.18420	92.5511271413066	-1.2621208411112	0.0006061	0.0144857	120.99016	125.96483	110.15588	95.205369	137.33564	80.771997	25.106846	44.878273	MSTRG.18	Coding
MSTRG.18453	18.7382648364393	1.80510742347381	0.0002639	0.0077877	11.567535	11.772414	9.5787725	11.540044	2.8611591	31.819271	28.693539	42.073381	MSTRG.18	Coding
MSTRG.1859	27.1149329695937	-1.47285962013374	0.0021771	0.0370043	29.075156	32.962760	35.920397	31.735123	48.639706	12.238181	17.933461	8.4146762	MSTRG.18	Coding
MSTRG.18646	56.0356713691764	1.3665239453851	0.0001973	0.0063271	25.010887	24.722070	37.117743	40.390156	51.500865	105.24836	71.733847	92.561438	MSTRG.18	Non-coding
MSTRG.18867	207.462517475999	1.15295456061599	0.0002253	0.0069299	155.69277	142.44621	107.76119	170.21566	137.33564	186.02035	347.90916	412.31913	MSTRG.18	Non-coding
MSTRG.18879	26.3622385637814	3.05923182257652	0.0002552	0.0076306	0.6252721	2.3544829	5.9867328	8.6550336	20.028114	39.162180	100.42738	33.658704	MSTRG.18	Non-coding
MSTRG.18917	20.2019746571227	2.60391695852853	0.0024674	0.0402695	2.1884526	1.1772414	2.3946931	23.080089	8.5834775	19.581090	68.147155	36.463596	MSTRG.18	Non-coding
MSTRG.18967	235.234346497329	1.07541517161172	0.0026793	0.0429592	114.11217	89.470350	177.20729	248.11096	206.00346	318.19271	383.77608	345.00172	MSTRG.18	Coding
MSTRG.18995	11.7266945986053	2.54097832585074	0.0004246	0.0110247	3.4389970	1.1772414	5.9867328	5.7700224	5.7223183	7.3429088	25.106846	39.268489	MSTRG.18	Coding
MSTRG.19011	99.9019017602071	5.07398123973279	1.1860768	9.6987199	10.004354	7.0634487	1.1973465	14.425056	5.7223183	58.743271	286.93539	415.12402	MSTRG.19	Non-coding
MSTRG.19078	106.14562112637	2.23296478853037	1.6820827	0.0008873	32.201517	45.912416	67.051408	43.275168	34.333910	46.505089	279.76200	300.12345	MSTRG.19	Coding
MSTRG.19160	186.562180363938	1.19302665304299	9.5058631	0.0035332	122.55334	93.002075	95.787725	178.87069	143.05795	222.73490	333.56239	302.92834	MSTRG.19	Coding
MSTRG.19162	4.20948363790778	2.94752291105437	0.0032456	0.0493150	1.5631804	1.1772414	2.3946931	0	0	7.3429088	7.1733847	14.024460	MSTRG.19	Non-coding
MSTRG.19234	47.5002493760027	2.72970869193974	8.3651316	9.2080794	15.631804	11.772414	27.538971	2.8850112	17.166955	75.876725	86.080617	143.04949	MSTRG.19	Non-coding
MSTRG.19335	44.6816617525564	-1.05556469341074	0.0029832	0.0463350	60.651402	55.330348	56.275288	46.160179	57.223183	34.266908	25.106846	22.439136	MSTRG.19	Coding
MSTRG.19372	159.522715500807	-1.57643366603643	0.0006586	0.0155145	151.62850	347.28623	283.77113	124.05548	157.36375	44.057453	50.213693	117.80546	MSTRG.19	Non-coding
MSTRG.19516	8.41013693852369	2.56969988084346	0.0031911	0.0487100	2.1884526	0	2.3946931	8.6550336	2.8611591	22.028726	17.933461	11.219568	MSTRG.19	Non-coding
MSTRG.1954	2.74665139327179	4.14224519374338	0.0015716	0.0291605	0.3126360	1.1772414	0	0	0	4.8952725	7.1733847	8.4146762	MSTRG.19	Non-coding
MSTRG.1955	48.4199549168501	2.40428708411545	4.9377757	0.0003175	22.822434	18.835863	21.552238	20.195078	8.5834775	26.923999	150.64108	117.80546	MSTRG.19	Non-coding
MSTRG.19584	20.1542524730588	2.48745292064911	6.1059267	0.0003861	6.5653579	4.7089658	7.1840794	14.425056	5.7223183	19.581090	60.973770	42.073381	MSTRG.19	Coding
MSTRG.19590	248.038438740502	-1.78794314919511	1.6827764	3.2083738	284.49884	324.91864	293.34991	447.17673	340.47794	119.93417	64.560463	109.39079	MSTRG.19	Coding
MSTRG.19601	80.8095315815346	1.52957759777091	0.0015957	0.0295598	31.263609	83.584143	61.064675	25.965100	34.333910	66.086179	150.64108	193.53755	MSTRG.19	Non-coding
MSTRG.19702	170.875050631375	2.20851335247143	8.1843216	6.7894285	93.790828	64.748280	93.393032	49.045190	60.084342	112.59126	405.29624	488.05122	MSTRG.19	Coding
MSTRG.19714	20.9627678528213	-5.67531230773138	5.2975414	0.0022133	39.392147	62.393797	49.091209	8.6550336	5.7223183	2.4476362	0	0	MSTRG.19	Coding
MSTRG.19757	121.803353277285	-3.29396265875713	1.8859649	4.3181053	236.97815	233.09380	150.86566	147.13557	148.78027	22.028726	21.520154	14.024460	MSTRG.19	Non-coding
MSTRG.19769	38.4674964287418	1.23747892811699	0.0031638	0.0484870	27.824612	21.190346	37.117743	17.310067	22.889273	44.057453	89.667309	47.683165	MSTRG.19	Coding
MSTRG.19919	90.7910348793968	-1.45362625720586	2.9242159	0.0013719	116.30062	110.66069	106.56384	173.10067	88.695934	53.847998	32.280231	44.878273	MSTRG.19	Non-coding
MSTRG.1997	60.1878153602319	-1.01729538210235	0.0013672	0.0266506	66.278851	64.748280	82.616913	80.780313	77.251297	36.714544	39.453616	33.658704	MSTRG.19	Non-coding
MSTRG.20145	69.561724869155	-1.37504382595145	0.0004411	0.0113754	105.98363	93.002075	100.57711	75.010291	74.390138	58.743271	17.933461	30.853812	MSTRG.20	Coding

MSTRG.20166	57.072948973569	-1.64540417241466	0.0002533	0.0075915	65.966215	82.406902	80.222220	57.700224	97.279412	29.371635	7.1733847	36.463596	MSTRG.20	Coding
MSTRG.20176	36.0689642893858	2.02309435993648	7.8052128	6.6792529	17.820257	15.304138	14.368158	14.425056	22.889273	41.609816	100.42738	61.707625	MSTRG.20	Coding
MSTRG.20348	54.6787736369626	1.07810967689502	0.0016931	0.0309410	27.511976	32.962760	43.104476	49.045190	42.917387	68.533816	100.42738	72.927193	MSTRG.20	Coding
MSTRG.20420	194.355526884072	-1.20542793404189	0.0001591	0.0052949	344.83761	198.95380	164.03648	262.53601	263.22664	100.35308	125.53423	95.366330	MSTRG.20	Coding
MSTRG.20565	58.3868351071418	1.10659407202573	0.0029618	0.0463213	35.953150	29.431036	33.525704	51.930201	54.362024	122.38181	60.973770	78.536978	MSTRG.20	Non-coding
MSTRG.20656	12.385543050567	2.22880219529155	0.0020484	0.0357480	3.1263609	2.3544829	9.5787725	5.7700224	5.7223183	14.685817	46.627001	11.219568	MSTRG.20	Non-coding
MSTRG.20766	66.5906439586385	1.49763552881672	2.9543298	2.8662007	36.891059	38.848968	43.104476	43.275168	37.195069	83.219633	118.36084	131.82992	MSTRG.20	Coding
MSTRG.20799	52.3429636428118	1.49299679678824	0.0027125	0.0432491	18.758165	27.076553	37.117743	20.195078	54.362024	44.057453	147.05438	70.122301	MSTRG.20	Coding
MSTRG.20953	20.1153268362998	2.63160034375687	0.0002206	0.0068259	2.5010887	1.1772414	9.5787725	17.310067	5.7223183	36.714544	43.040308	44.878273	MSTRG.20	Non-coding
MSTRG.20957	34.255799753268	1.45360297304501	0.0009502	0.0205643	20.946618	24.722070	29.933664	17.310067	8.5834775	58.743271	71.733847	42.073381	MSTRG.20	Coding
MSTRG.21062	25.7317303244201	1.48937038505368	0.0009172	0.0200783	17.820257	14.126897	14.368158	17.310067	11.444636	66.086179	39.453616	25.244028	MSTRG.21	Non-coding
MSTRG.21160	3.56201679337863	5.48047789083542	3.5706589	0.0016220	0.3126360	0	0	0	0	9.7905451	7.1733847	11.219568	MSTRG.21	Non-coding
MSTRG.21223	2.94290576536784	5.98101474369184	0.0012126	0.0245280	0	0	0	0	0	17.933461	5.6097841		MSTRG.21	Non-coding
MSTRG.21224	65.9085711432373	2.70105297759449	0.0012987	0.0258491	0.9379082	5.8862072	14.368158	43.275168	45.778546	107.69599	222.37492	86.951654	MSTRG.21	Non-coding
MSTRG.21282	7.34781222549242	-5.06900944379717	0.0003663	0.0099379	7.8159023	4.7089658	5.9867328	25.965100	14.305795	0	0	0	MSTRG.21	Non-coding
MSTRG.21307	19.5280675301977	4.5210809285296	4.1590529	7.0018878	2.8137248	1.1772414	1.1973465	2.8850112	2.8611591	7.3429088	53.800385	84.146762	MSTRG.21	Non-coding
MSTRG.21308	84.7782899731734	5.25067384401354	1.0286658	2.9440415	3.1263609	2.3544829	3.5920397	14.425056	8.5834775	85.667270	164.98785	395.48978	MSTRG.21	Non-coding
MSTRG.21335	6.93556451496778	3.19556900428965	0.0010843	0.0226939	1.2505443	0	2.3946931	0	5.7223183	9.7905451	25.106846	11.219568	MSTRG.21	Non-coding
MSTRG.21409	51.8001893266652	3.53191621784642	9.5588995	0.0005499	3.4389970	2.3544829	19.157545	2.8850112	25.750432	29.371635	208.02815	123.41525	MSTRG.21	Coding
MSTRG.21419	79.0691681812834	-2.23381461084137	0.0006725	0.0156898	112.23635	133.02828	165.23382	98.090380	51.500865	41.609816	0	30.853812	MSTRG.21	Coding
MSTRG.21435	4.15467146853028	-4.27524327660463	0.0026418	0.0424766	3.4389970	7.0634487	8.3814260	5.7700224	8.5834775	0	0	0	MSTRG.21	Non-coding
MSTRG.21478	41.1571571071407	1.67234662543458	0.0001041	0.0037913	19.070801	22.367587	19.157545	34.620134	20.028114	34.266908	104.01407	75.732085	MSTRG.21	Coding
MSTRG.215	33.6306993801874	2.69037135926507	8.9330247	0.0005244	7.1906301	18.835863	16.762852	0	11.444636	48.952725	78.907232	86.951654	MSTRG.21	Coding
MSTRG.21504	13.9263177170202	3.38523054337048	0.0005137	0.0129027	0.6252721	0	4.7893862	8.6550336	2.8611591	7.3429088	39.453616	47.683165	MSTRG.21	Non-coding
MSTRG.21717	40.2320927432718	1.81190428996973	5.2066776	0.0003311	28.137248	18.835863	22.749584	23.080089	8.5834775	70.981452	68.147155	81.341870	MSTRG.21	Coding
MSTRG.21850	18.5789746772774	4.32916765755414	1.8340251	2.5234172	1.2505443	1.1772414	5.9867328	2.8850112	0	17.133454	75.320540	44.878273	MSTRG.21	Non-coding
MSTRG.21955	102.70277257709	1.71966196246957	0.0028390	0.0446449	26.886704	15.304138	86.208953	112.51543	37.195069	127.27708	236.72169	179.51309	MSTRG.21	Coding
MSTRG.21970	29.5332287069948	1.67718965391177	0.0005523	0.0135989	15.006532	11.772414	22.749584	14.425056	17.166955	31.819271	89.667309	33.658704	MSTRG.21	Non-coding
MSTRG.22050	31.3493402483133	5.09584995155301	0.0017714	0.0319801	1.2505443	0	2.3946931	0	8.5834775	2.4476362	53.800385	182.31798	MSTRG.22	Non-coding
MSTRG.2206	20.0342953974659	-5.56771148970585	8.2839951	0.0004913	31.576245	23.544829	25.144278	37.505145	40.056228	2.4476362	0	0	MSTRG.22	Coding
MSTRG.22087	60.7939989212188	3.03118510732635	9.0026410	0.0033902	4.6895414	1.1772414	13.170812	51.930201	14.305795	132.17235	139.88100	129.02503	MSTRG.22	Non-coding
MSTRG.22123	60.7939989212188	3.03118510732635	9.0026410	0.0033902	4.6895414	1.1772414	13.170812	51.930201	14.305795	132.17235	139.88100	129.02503	MSTRG.22	Non-coding
MSTRG.22129	8.25966825377018	5.11473982284504	7.5418838	0.0029168	0	0	1.1973465	2.8850112	0	2.4476362	28.693539	30.853812	MSTRG.22	Coding
MSTRG.22136	8.25966825377018	5.11473982284504	7.5418838	0.0029168	0	0	1.1973465	2.8850112	0	2.4476362	28.693539	30.853812	MSTRG.22	Non-coding
MSTRG.22167	9.16241251859315	-3.45290260088783	0.0026169	0.0422545	12.818079	14.126897	15.565505	17.310067	8.5834775	4.8952725	0	0	MSTRG.22	Non-coding
MSTRG.22195	60.7939989212188	3.03118510732635	9.0026410	0.0033902	4.6895414	1.1772414	13.170812	51.930201	14.305795	132.17235	139.88100	129.02503	MSTRG.22	Non-coding
MSTRG.22232	10.2024724648161	2.24219653795183	0.0013671	0.0266506	1.5631804	3.5317243	5.9867328	2.8850112	8.5834775	17.133454	25.106846	16.829352	MSTRG.22	Non-coding
MSTRG.22271	65.8134965524433	1.30240215632632	0.0017599	0.0318299	29.075156	28.253794	34.723050	63.470246	60.084342	88.114906	147.05438	75.732085	MSTRG.22	Coding
MSTRG.22274	31.3881112203797	1.70819197502708	7.0943056	0.0028102	15.631804	21.190346	23.946931	11.540044	11.444636	36.714544	71.733847	58.902733	MSTRG.22	Coding
MSTRG.22277	225.113990689062	2.63984354872445	5.7998006	2.6558446	48.145958	80.052419	128.11608	51.930201	71.528979	320.64035	480.61678	619.88114	MSTRG.22	Non-coding

MSTRG.22278	225.074911177356	2.64110717894669	6.1988175	2.7293870	47.833322	80.052419	128.11608	51.930201	71.528979	320.64035	480.61678	619.88114	MSTRG.22	Non-coding
MSTRG.2309	18.19521164271	-3.14676347917017	0.0007032	0.0163294	34.702606	45.912416	34.723050	5.7700224	14.305795	7.3429088	0	2.8048920	MSTRG.23	Coding
MSTRG.2392	110.262609185784	2.8210017206179	0.0001890	0.0061125	6.2527218	5.8862072	21.552238	86.550336	51.500865	100.35308	340.73577	269.26963	MSTRG.23	Non-coding
MSTRG.2425	9.23263378885254	2.92404592205294	0.0014591	0.0276553	1.2505443	0	2.3946931	2.8850112	8.5834775	17.133454	10.760077	30.853812	MSTRG.24	Non-coding
MSTRG.2628	4.07843727176386	-4.2289015717033	0.0029797	0.0463350	4.6895414	5.8862072	4.7893862	11.540044	5.7223183	0	0	0	MSTRG.26	Coding
MSTRG.2643	4.84826641610051	-4.50673109671946	0.0021935	0.0371474	5.0021774	14.126897	2.3946931	11.540044	5.7223183	0	0	0	MSTRG.26	Non-coding
MSTRG.2669	32.4386908094111	1.50298105741642	0.0009495	0.0205643	19.383437	16.481380	13.170812	31.735123	17.166955	29.371635	78.907232	53.292949	MSTRG.26	Coding
MSTRG.273	16.7240357306843	2.6989696527088	0.0025899	0.0418780	0.6252721	1.1772414	4.7893862	17.310067	5.7223183	14.685817	50.213693	39.268489	MSTRG.27	Non-coding
MSTRG.284	5.62776295446507	4.96336488898012	9.2597675	0.0034529	1.2505443	0	0	0	0	9.7905451	14.346769	19.634244	MSTRG.28	Non-coding
MSTRG.291	57.8559698470208	3.693881535102	0.0022419	0.0377061	9.3790828	4.7089658	32.328357	0	5.7223183	19.581090	211.61485	179.51309	MSTRG.29	Coding
MSTRG.2913	521.520512886026	2.97470977181976	1.1539505	3.3872885	90.977103	188.35863	251.44278	60.585235	137.33564	633.93779	1205.1286	1604.3982	MSTRG.29	Non-coding
MSTRG.2978	8.33720147335151	2.43108954537791	0.0003651	0.0099281	2.1884526	3.5317243	2.3946931	2.8850112	5.7223183	19.581090	10.760077	19.634244	MSTRG.29	Non-coding
MSTRG.299	60.3911854963028	5.06241475387551	5.7879475	6.6260423	3.7516331	1.1772414	9.5787725	0	8.5834775	70.981452	150.64108	238.41582	MSTRG.29	Non-coding
MSTRG.2990	44.1517538737139	1.11815786991806	0.0008193	0.0184286	25.010887	36.494485	28.736317	31.735123	31.472751	78.324361	68.147155	53.292949	MSTRG.29	Coding
MSTRG.3102	93.6717120626398	-1.2715366199693	0.0002757	0.0080311	138.81042	122.43311	126.91873	75.010291	134.47448	70.981452	35.866923	44.878273	MSTRG.31	Coding
MSTRG.3135	42.4370121971625	3.45578960602527	2.6843575	4.6561401	9.6917189	9.4179316	13.170812	2.8850112	8.5834775	29.371635	89.667309	176.70820	MSTRG.31	Non-coding
MSTRG.3189	41.3503694704385	-2.60950206350865	4.2688219	3.9731279	55.649224	81.229660	64.656714	49.045190	48.639706	19.581090	3.5866923	8.4146762	MSTRG.31	Coding
MSTRG.323	68.1569144166288	-1.15417022098103	0.0014538	0.0276474	106.92154	87.115867	94.590379	77.895302	60.084342	56.295634	28.693539	33.658704	MSTRG.32	Coding
MSTRG.3305	10.8739947732428	4.25368105979725	0.0013804	0.0268300	0	0	0	5.7700224	2.8611591	44.057453	28.693539	5.6097841	MSTRG.33	Non-coding
MSTRG.3545	7.71057263878205	4.09353097546458	0.0001228	0.0043424	1.5631804	0	1.1973465	0	2.8611591	2.4476362	14.346769	39.268489	MSTRG.35	Non-coding
MSTRG.3546	8.82105269456573	4.4408990470854	2.4370893	0.0011974	1.2505443	0	1.1973465	0	2.8611591	2.4476362	17.933461	44.878273	MSTRG.35	Non-coding
MSTRG.3548	6.94963182737549	4.05908275539624	0.0020733	0.0358459	0.3126360	0	2.3946931	0	2.8611591	0	10.760077	39.268489	MSTRG.35	Non-coding
MSTRG.3638	8.16644022706309	-4.20331072145151	0.0018566	0.0331592	6.5653579	11.772414	7.1840794	20.195078	17.166955	2.4476362	0	0	MSTRG.36	Coding
MSTRG.3728	21.4497819233326	-2.31177164373316	0.0014231	0.0272442	36.891059	25.899312	19.157545	31.735123	37.195069	17.133454	3.5866923	0	MSTRG.37	Non-coding
MSTRG.379	3.48531369832859	4.78972865273283	0.0019830	0.0349565	0	0	0	0	2.8611591	12.238181	7.1733847	5.6097841	MSTRG.37	Non-coding
MSTRG.3829	20.7344169858204	1.6639551356451	0.0026331	0.0423973	12.192807	9.4179316	13.170812	17.310067	5.7223183	22.028726	21.520154	64.512517	MSTRG.38	Coding
MSTRG.3847	3.71841919430155	3.754129311100925	0.0020789	0.0358459	1.2505443	0	1.1973465	0	0	7.3429088	14.346769	5.6097841	MSTRG.38	Non-coding
MSTRG.3869	21.1068858291414	-1.7283561170861	0.0019257	0.0341483	33.139425	30.608277	28.736317	31.735123	17.166955	14.685817	7.1733847	5.6097841	MSTRG.38	Coding
MSTRG.3903	62.2861753094424	-2.02787950953326	1.8235691	2.5234172	93.478192	77.697936	80.222220	92.320358	91.557093	14.685817	28.693539	19.634244	MSTRG.39	Coding
MSTRG.3935	7.20957287113533	3.66221844569365	2.5646296	0.0012493	1.5631804	1.1772414	1.1973465	0	2.8611591	4.8952725	17.933461	28.048920	MSTRG.39	Non-coding
MSTRG.4008	8.76607773498272	3.07479373793567	0.0005549	0.0136139	1.2505443	3.5317243	5.9867328	0	0	9.7905451	21.520154	28.048920	MSTRG.40	Coding
MSTRG.401	115.965617235161	-1.36078441468548	4.0684838	3.8460785	166.94767	153.04138	126.91873	144.25056	160.22491	63.638543	53.800385	58.902733	MSTRG.40	Non-coding
MSTRG.4012	28.3783255904257	2.45719643598567	0.0008152	0.0183719	9.6917189	8.2406902	22.749584	0	11.444636	17.133454	93.254002	64.512517	MSTRG.40	Coding
MSTRG.4028	16.9046440162229	2.38385378096369	0.0005370	0.0133645	2.5010887	2.3544829	4.7893862	11.540044	14.305795	34.266908	43.040308	22.439136	MSTRG.40	Coding
MSTRG.4041	47.8134686243338	1.39471803193154	0.0001692	0.0055370	25.948795	34.140002	37.117743	28.850112	22.889273	46.505089	86.080617	100.97611	MSTRG.40	Coding
MSTRG.4046	4.0666986357694	-4.31059370264819	0.0029763	0.0463350	8.4411745	4.7089658	10.776119	2.8850112	5.7223183	0	0	0	MSTRG.40	Coding
MSTRG.4081	9.92970510059846	-4.54718505830087	0.0016205	0.0297794	16.569712	24.722070	1.1973465	20.195078	14.305795	2.4476362	0	0	MSTRG.40	Non-coding
MSTRG.4220	10.8633905400411	2.23745990509862	0.0012016	0.0243483	2.8137248	5.8862072	1.1973465	5.7700224	8.5834775	17.133454	28.693539	16.829352	MSTRG.42	Non-coding
MSTRG.4411	16.1668426018707	-2.11115611177809	0.0011260	0.0233105	20.008709	30.608277	20.354891	25.965100	17.166955	2.4476362	7.1733847	5.6097841	MSTRG.44	Coding
MSTRG.4517	17.8476357199001	1.97265648565941	0.0003589	0.0098296	7.1906301	9.4179316	7.1840794	11.540044	8.5834775	22.028726	17.933461	58.902733	MSTRG.45	Non-coding

MSTRG.4519	24.6836921032446	1.87589383003297	0.0002341	0.0071282	9.3790828	8.2406902	9.5787725	11.540044	25.750432	31.819271	39.453616	61.707625	MSTRG.45	Coding
MSTRG.4571	69.9455969103061	-1.41650705941699	3.9405477	0.0017218	112.86162	91.824833	64.656714	98.090380	88.695934	36.714544	35.866923	30.853812	MSTRG.45	Coding
MSTRG.458	78.3637955931495	2.07399286132528	3.4276317	4.2193040	33.764698	31.785519	44.301823	34.620134	34.333910	75.876725	150.64108	221.58647	MSTRG.45	Non-coding
MSTRG.459	709.363961621737	3.14198413762807	0.0008315	0.0186282	27.511976	35.317243	222.70646	285.61610	331.89446	526.24180	2453.2975	1792.3260	MSTRG.45	Non-coding
MSTRG.4639	5.01032894287771	6.79160843975686	1.9886961	1.9970696	0	0	0	0	0	7.3429088	21.520154	11.219568	MSTRG.46	Non-coding
MSTRG.4653	437.540211636983	-1.24158535810497	6.1926444	9.9849850	545.54998	596.86141	566.34492	565.46219	520.73097	181.12508	269.00192	255.24517	MSTRG.46	Coding
MSTRG.4821	138.397298474255	3.83196900710035	2.9117567	3.7453697	7.5032662	9.4179316	64.656714	11.540044	22.889273	122.38181	279.76200	589.02733	MSTRG.48	Non-coding
MSTRG.4855	54.9206368892585	3.43467962104235	1.5055632	2.1544609	13.443352	12.949656	19.157545	5.7700224	5.7223183	26.923999	150.64108	204.75712	MSTRG.48	Coding
MSTRG.490	38.350971624148	-3.05803867244714	3.0029130	3.8197053	77.221115	50.621382	58.669982	54.815212	45.778546	4.8952725	3.5866923	11.219568	MSTRG.49	Non-coding
MSTRG.4903	52.4592653468278	3.0807519595732	1.0026635	0.0005654	10.942263	18.835863	21.552238	11.540044	5.7223183	12.238181	100.42738	238.41582	MSTRG.49	Non-coding
MSTRG.4919	10.4893879139185	-3.14492748789624	0.0014573	0.0276553	18.132893	14.126897	11.973465	11.540044	22.889273	2.4476362	0	2.8048920	MSTRG.49	Coding
MSTRG.4947	73.0702341839332	-1.37756961269605	3.7045733	0.0016631	111.61108	103.59724	74.235487	83.665324	103.00173	26.923999	39.453616	42.073381	MSTRG.49	Non-coding
MSTRG.4988	18.5465130591257	4.82125893108683	5.1543793	1.6859238	0.9379082	1.1772414	3.5920397	2.8850112	0	19.581090	75.320540	44.878273	MSTRG.49	Non-coding
MSTRG.5021	4.18824556448138	3.75406084747426	0.0017566	0.0318193	0.3126360	0	1.1973465	0	2.8611591	17.133454	3.5866923	8.4146762	MSTRG.50	Non-coding
MSTRG.5224	76.7005310844722	2.16956556936645	1.5120216	3.0910042	37.828967	36.494485	33.525704	23.080089	34.333910	88.114906	147.05438	213.17179	MSTRG.52	Coding
MSTRG.525	191.822300538047	1.43680209112049	1.2270542	0.0006657	108.48472	124.78759	106.56384	109.63042	137.33564	166.43926	444.74985	336.58704	MSTRG.52	Non-coding
MSTRG.5378	45.1771841188832	2.5293595609146	4.2749368	0.0002828	23.135070	9.4179316	19.157545	8.6550336	20.028114	26.923999	136.29431	117.80546	MSTRG.53	Coding
MSTRG.5455	27.7498089390786	-2.00364013176087	5.4581464	0.0022534	34.389970	47.089658	31.131010	37.505145	42.917387	9.7905451	10.760077	8.4146762	MSTRG.54	Non-coding
MSTRG.5731	46.4416270962631	1.77420782893041	1.8628748	0.0009693	18.758165	14.126897	31.131010	28.850112	31.472751	51.400362	100.42738	95.366330	MSTRG.57	Coding
MSTRG.5802	259.563988032839	1.44581221916541	0.0004337	0.0112079	84.724381	141.26897	183.19402	230.80089	151.64143	200.70617	534.41716	549.75884	MSTRG.58	Coding
MSTRG.5955	75.6004006400657	2.34640584333754	1.1717675	0.0006480	41.267964	42.380692	23.946931	23.080089	17.166955	39.162180	243.89508	173.90330	MSTRG.59	Coding
MSTRG.6014	47.0730798469112	1.90997255139	2.6175387	4.6100898	20.946618	25.899312	25.144278	23.080089	20.028114	102.80072	71.733847	86.951654	MSTRG.60	Coding
MSTRG.607	45.0625580485725	1.862831444797357	5.8918140	0.0024003	21.259254	17.658621	16.762852	23.080089	37.195069	34.266908	89.667309	120.61035	MSTRG.60	Coding
MSTRG.6089	22.3968967224005	2.56303785267097	7.1091078	0.0004375	11.880171	10.595173	8.3814260	5.7700224	0	53.847998	46.627001	42.073381	MSTRG.60	Coding
MSTRG.6105	157.195676248088	-1.58251041097002	0.0021403	0.0366814	160.38231	472.07382	186.78606	150.02058	77.251297	83.219633	71.733847	56.097841	MSTRG.61	Coding
MSTRG.6106	222.1734445574	-2.00788270942943	9.6814759	0.0005541	215.09363	534.46762	228.69319	403.90156	163.08607	112.59126	46.627001	72.927193	MSTRG.61	Non-coding
MSTRG.6130	24.3335574385032	5.60285229060181	8.0700858	7.1066417	1.5631804	2.3544829	1.1973465	0	0	24.476362	75.320540	89.756546	MSTRG.61	Coding
MSTRG.6139	8.18713032535147	2.43766725561093	0.0025029	0.0407014	2.8137248	2.3544829	2.3946931	8.6550336	0	7.3429088	25.106846	16.829352	MSTRG.61	Non-coding
MSTRG.6155	94.6811099242645	-1.36757533134523	2.3464414	0.0011628	104.42045	153.04138	89.800992	144.25056	123.02984	51.400362	46.627001	44.878273	MSTRG.61	Coding
MSTRG.6172	103.278004344142	-1.53317477503605	2.4064670	0.0001722	136.62197	140.09173	119.73465	152.90559	134.47448	61.190907	25.106846	56.097841	MSTRG.61	Non-coding
MSTRG.6352	87.2454564321897	-1.09526968987099	0.0007534	0.0171919	126.61761	121.25587	82.616913	103.86040	108.72404	68.533816	35.866923	50.488057	MSTRG.63	Coding
MSTRG.6517	15.8304408102021	2.4481630390568	0.0012235	0.0247046	2.1884526	3.5317243	5.9867328	8.6550336	11.444636	4.8952725	39.453616	50.488057	MSTRG.65	Coding
MSTRG.6656	1533.38549604816	5.20213517093423	4.3255319	6.1898361	32.826789	64.748280	272.99501	43.275168	117.30752	1329.0665	5369.2785	5037.5861	MSTRG.66	Non-coding
MSTRG.6763	67.7728860592772	1.51536872238865	2.7510623	0.0001944	40.642692	35.317243	44.301823	43.275168	37.195069	70.981452	147.05438	123.41525	MSTRG.67	Coding
MSTRG.6895	21.182368658973	2.6048074923239	0.0001375	0.0047288	2.5010887	2.3544829	8.3814260	17.310067	8.5834775	24.476362	60.973770	44.878273	MSTRG.68	Coding
MSTRG.6941	6.22931734033726	-4.86134120001172	0.0003830	0.0101752	10.942263	5.8862072	7.1840794	8.6550336	17.166955	0	0	0	MSTRG.69	Non-coding
MSTRG.6946	76.5239492974779	1.97567906006464	3.7646625	0.0002550	39.392147	21.190346	47.893862	37.505145	37.195069	63.638543	157.81446	207.56201	MSTRG.69	Non-coding
MSTRG.7070	96.6375068957955	-1.03822281610822	0.0006850	0.0159405	93.790828	114.19242	124.52404	138.48053	125.89100	78.324361	50.213693	47.683165	MSTRG.70	Coding
MSTRG.7268	34.6009138425086	1.97449603945995	0.0002170	0.0067515	9.0664467	11.772414	13.170812	25.965100	25.750432	26.923999	96.840694	67.317409	MSTRG.72	Coding
MSTRG.7331	56.7501102395245	2.58138533869709	1.0768831	4.2510892	18.132893	14.126897	15.565505	25.965100	28.611591	78.324361	147.05438	126.22014	MSTRG.73	Coding

MSTRG.7406	6.54880093908308	3.01855788847493	0.0022374	0.0377061	2.5010887	1.1772414	0	0	5.7223183	9.7905451	10.760077	22.439136	MSTRG.74	Coding
MSTRG.7616	8.15660915290802	-5.24102383940123	0.0001542	0.0052251	6.8779940	7.0634487	16.762852	25.965100	8.5834775	0	0	0	MSTRG.76	Non-coding
MSTRG.7622	4.07628518036563	5.21813054176742	7.2041829	0.0028439	0	0	1.1973465	0	0	12.238181	10.760077	8.4146762	MSTRG.76	Coding
MSTRG.7756	5.89674622193009	4.27731334142231	0.0009121	0.0200036	0	1.1772414	2.3946931	0	0	2.4476362	21.520154	19.6342444	MSTRG.77	Non-coding
MSTRG.7830	380.394469058314	2.66208580324921	1.6728192	1.7098602	50.959683	63.571038	82.616913	216.37584	226.03157	543.37525	993.51379	866.71165	MSTRG.78	Coding
MSTRG.7874	5.78980579450702	3.66874625426359	0.0012633	0.0254169	0.3126360	2.3544829	2.3946931	0	0	2.4476362	10.760077	28.048920	MSTRG.78	Non-coding
MSTRG.8175	13.0319882998191	-2.69483275983031	0.0015100	0.0284317	21.884526	21.190346	17.960198	5.7700224	28.611591	2.4476362	3.5866923	2.8048920	MSTRG.81	Coding
MSTRG.82	67.7911595856358	-1.25054918237409	0.0002257	0.0069299	89.413922	98.888282	80.222220	75.010291	88.695934	46.505089	21.520154	42.073381	MSTRG.82	Coding
MSTRG.8208	620.334550244266	1.30976054405714	0.0013028	0.0258491	227.28644	207.19449	362.79601	689.51767	512.14749	1069.6170	1097.5278	796.58934	MSTRG.82	Coding
MSTRG.8221	116.235672696283	2.55789899179652	9.4521618	1.4427779	41.267964	35.317243	27.538971	51.930201	51.500865	83.219633	294.10877	345.00172	MSTRG.82	Non-coding
MSTRG.8311	102.711959574743	2.33361827649059	0.0007273	0.0167543	8.7538106	5.8862072	43.104476	83.665324	65.806661	173.78217	233.13500	207.56201	MSTRG.83	Non-coding
MSTRG.8563	25.0803498479601	2.29575436251187	4.5988117	0.0019718	8.7538106	9.4179316	15.565505	5.7700224	11.444636	14.685817	78.907232	56.097841	MSTRG.85	Coding
MSTRG.8571	45.4466492258267	-1.40361549215343	0.0002044	0.0064667	56.899769	56.507589	47.893862	60.585235	74.390138	26.923999	17.933461	22.439136	MSTRG.85	Coding
MSTRG.858	14.3136684879485	-3.11501111490421	0.0002930	0.0083930	16.569712	16.481380	19.157545	28.850112	25.750432	4.8952725	0	2.8048920	MSTRG.85	Coding
MSTRG.8606	18.5878230723189	1.58500450822285	0.0013370	0.0263743	10.942263	8.2406902	8.3814260	11.540044	14.305795	46.505089	17.933461	30.853812	MSTRG.86	Coding
MSTRG.8610	194.024391069304	1.17451983190419	0.0018037	0.0324671	128.18079	191.89035	162.83913	83.665324	91.557093	176.22981	333.56239	384.27021	MSTRG.86	Non-coding
MSTRG.8717	22.8868797087882	1.41385831600733	0.0024384	0.0398798	18.445529	14.126897	16.762852	11.540044	8.5834775	24.476362	35.866923	53.292949	MSTRG.87	Coding
MSTRG.8767	115.32590395901	-1.07014243258881	0.0010093	0.0214376	122.55334	191.89035	161.64178	147.13557	94.418253	58.743271	78.907232	67.317409	MSTRG.87	Non-coding
MSTRG.8843	88.173892696859	1.56446938007225	2.0786780	0.0001506	53.773408	49.444141	71.840794	43.275168	34.333910	112.59126	157.81446	182.31798	MSTRG.88	Non-coding
MSTRG.8880	13.3219798125404	-3.36398155902661	0.0010553	0.0222489	21.884526	23.544829	25.144278	5.7700224	22.889273	7.3429088	0	0	MSTRG.88	Non-coding
MSTRG.8897	10.2095796092822	2.66006130136647	0.0002765	0.0080365	2.1884526	1.1772414	3.5920397	2.8850112	8.5834775	26.923999	25.106846	11.219568	MSTRG.88	Coding
MSTRG.8918	46.171335716657	1.04167726960896	0.0031493	0.0484596	25.010887	34.140002	25.144278	46.160179	37.195069	73.429088	60.973770	67.317409	MSTRG.89	Non-coding
MSTRG.8942	559.634801472806	-1.16090409026945	3.0595522	3.8489839	814.10438	707.52211	565.14758	701.05772	741.04022	330.43089	312.04223	305.73323	MSTRG.89	Coding
MSTRG.8994	20.305240486521	-2.20290544488334	0.0015411	0.0289233	19.696073	31.785519	37.117743	28.850112	25.750432	4.8952725	14.346769	0	MSTRG.89	Coding
MSTRG.9004	76.228945337339	-1.29886042963148	0.0008635	0.0191993	131.93243	115.36966	101.77445	66.355257	74.390138	41.609816	25.106846	53.292949	MSTRG.90	Coding
MSTRG.9033	93.6029053377654	-1.28556799876175	0.0004939	0.0124564	172.88775	123.61035	106.56384	83.665324	114.44636	31.819271	68.147155	47.683165	MSTRG.90	Non-coding
MSTRG.9137	70.610960389585	-1.55459483722011	0.0001475	0.0050419	73.469482	111.83793	69.446101	124.05548	88.695934	51.400362	17.933461	28.048920	MSTRG.91	Coding
MSTRG.9161	34.2631883929298	1.40802969811832	0.0029870	0.0463350	22.822434	9.4179316	17.960198	25.965100	31.472751	34.266908	78.907232	53.292949	MSTRG.91	Coding
MSTRG.9176	31.6593974692217	3.1602672339358	0.0001694	0.0055370	8.4411745	18.835863	10.776119	0	0	26.923999	78.907232	109.39079	MSTRG.91	Non-coding
MSTRG.9194	135.723109356508	-1.25692537173792	0.0016173	0.0297675	182.26684	202.48553	123.32669	196.18076	165.94723	56.295634	35.866923	123.41525	MSTRG.91	Non-coding
MSTRG.9225	6.10772499920018	4.40699433741513	1.5130979	0.0001163	0.6252721	1.1772414	1.1973465	0	0	14.685817	14.346769	16.829352	MSTRG.92	Coding
MSTRG.9265	80.0932806680954	1.4874958820271	0.0002286	0.0069990	42.831144	60.039314	63.459368	23.080089	48.639706	80.771997	190.09469	131.82992	MSTRG.92	Coding
MSTRG.9371	25.7864173042771	2.91888875289219	0.0004765	0.0121762	1.2505443	1.1772414	5.9867328	8.6550336	22.889273	24.476362	71.733847	70.122301	MSTRG.93	Coding
MSTRG.9419	26.1902785649611	1.80058058327416	0.0001479	0.0050419	14.068624	16.481380	16.762852	8.6550336	11.444636	26.923999	39.453616	75.732085	MSTRG.94	Non-coding
MSTRG.9433	48.5254375935472	1.76284369151551	0.0019899	0.0349939	29.700428	27.076553	33.525704	11.540044	25.750432	17.133454	100.42738	143.04949	MSTRG.94	Coding
MSTRG.9460	191.115431810751	1.55690531517191	0.0002569	0.0076518	86.287561	54.153107	94.590379	164.44563	157.36375	183.57272	451.92324	336.58704	MSTRG.94	Coding
MSTRG.9541	32.2373803629311	1.79660046726176	0.0005854	0.0141095	24.072979	17.658621	14.368158	5.7700224	20.028114	80.771997	25.106846	70.122301	MSTRG.95	Coding
MSTRG.9631	185.359771031994	2.14552197928336	1.0245178	1.5432474	109.73526	84.761384	101.77445	57.700224	48.639706	234.97308	326.38900	518.90503	MSTRG.96	Non-coding
MSTRG.9747	153.156164809305	1.463347808673	6.0136532	0.0024412	60.964038	82.406902	96.985072	129.82550	94.418253	171.33454	387.36277	201.95222	MSTRG.97	Non-coding
MSTRG.9772	5.90703235823679	-4.79979944360994	0.0006698	0.0156898	8.1285384	11.772414	7.1840794	17.310067	2.8611591	0	0	0	MSTRG.97	Non-coding

MSTRG.9795 42.2302585740143 -3.55121469267742 2.4026757 4.3660051 54.398680 80.052419 70.643447 54.815212 60.084342 12.238181 0 5.6097841 MSTRG.97: Coding  
MSTRG.9933 86.6919166953993 1.87770163774312 4.1667218 0.0002773 55.961860 51.798624 51.485902 37.505145 17.166955 100.35308 182.92131 196.34244 MSTRG.99: Non-coding

**Supplementary Table 3. Proportion and count per million(CPM) vaules of differentialy alternative splicing genes in Riccia fluitans thallus after high-dose micro-/nanoplastic treatment**

Gene_ID	transcript variant	sample	group	CPM	proportion
MSTRG.15348	MSTRG.15348.2	CTR1	CTR	33.2327	0.1186
	MSTRG.15348.2	CTR2	CTR	23.9993	0.0816
	MSTRG.15348.2	CTR3	CTR	28.0608	0.104
	MSTRG.15348.2	CTR4	CTR	46.0959	0.206
	MSTRG.15348.2	CTR5	CTR	27.5412	0.1636
	MSTRG.15348.2	HIGH_1	HIGH	143.372	0.4763
	MSTRG.15348.2	HIGH_2	HIGH	161.174	0.5719
	MSTRG.15348.2	HIGH_3	HIGH	241.2041	0.6452
MSTRG.15348	MSTRG.15348.1	CTR1	CTR	229.3186	0.8185
	MSTRG.15348.1	CTR2	CTR	199.2015	0.6777
	MSTRG.15348.1	CTR3	CTR	182.3008	0.6753
	MSTRG.15348.1	CTR4	CTR	123.3415	0.5512
	MSTRG.15348.1	CTR5	CTR	102.5146	0.6091
	MSTRG.15348.1	HIGH_1	HIGH	107.4977	0.3571
	MSTRG.15348.1	HIGH_2	HIGH	116.7851	0.4144
	MSTRG.15348.1	HIGH_3	HIGH	93.0478	0.2489
MSTRG.15348	evm.model.chr6.1922	CTR1	CTR	17.6032	0.0628
	evm.model.chr6.1922	CTR2	CTR	41.9813	0.1428
	evm.model.chr6.1922	CTR3	CTR	59.5742	0.2207
	evm.model.chr6.1922	CTR4	CTR	53.7786	0.2403
	evm.model.chr6.1922	CTR5	CTR	38.2517	0.2273
	evm.model.chr6.1922	HIGH_1	HIGH	50.1739	0.1667
	evm.model.chr6.1922	HIGH_2	HIGH	0.0	0.0
	evm.model.chr6.1922	HIGH_3	HIGH	35.4468	0.0948
MSTRG.15348	MSTRG.15348.6	CTR1	CTR	0.0	0.0
	MSTRG.15348.6	CTR2	CTR	16.7226	0.0569
	MSTRG.15348.6	CTR3	CTR	0.0	0.0
	MSTRG.15348.6	CTR4	CTR	0.2794	0.0012
	MSTRG.15348.6	CTR5	CTR	0.0	0.0

	MSTRG.15348.6	HIGH_1	HIGH	0.0	0.0
	MSTRG.15348.6	HIGH_2	HIGH	mar.52	0.0138
	MSTRG.15348.6	HIGH_3	HIGH	4.1539	0.0111
MSTRG.15348	MSTRG.15348.7	CTR1	CTR	0.0	0.0
	MSTRG.15348.7	CTR2	CTR	12.0347	0.0409
	MSTRG.15348.7	CTR3	CTR	0.0	0.0
	MSTRG.15348.7	CTR4	CTR	0.2794	0.0012
	MSTRG.15348.7	CTR5	CTR	0.0	0.0
	MSTRG.15348.7	HIGH_1	HIGH	0.0	0.0
	MSTRG.15348.7	HIGH_2	HIGH	0.0	0.0
	MSTRG.15348.7	HIGH_3	HIGH	0.0	0.0
MSTRG.15348	MSTRG.15348.9	CTR1	CTR	0.0	0.0
	MSTRG.15348.9	CTR2	CTR	0.0	0.0
	MSTRG.15348.9	CTR3	CTR	0.0	0.0
	MSTRG.15348.9	CTR4	CTR	0.0	0.0
	MSTRG.15348.9	CTR5	CTR	0.0	0.0
	MSTRG.15348.9	HIGH_1	HIGH	0.0	0.0
	MSTRG.15348.9	HIGH_2	HIGH	0.0	0.0
	MSTRG.15348.9	HIGH_3	HIGH	0.0	0.0
MSTRG.1789	evm.model.chr1.2189	CTR1	CTR	155.9774	0.5904
	evm.model.chr1.2189	CTR2	CTR	657.7078	0.7287
	evm.model.chr1.2189	CTR3	CTR	941.6364	0.7177
	evm.model.chr1.2189	CTR4	CTR	377.1484	0.4655
	evm.model.chr1.2189	CTR5	CTR	244.811	0.4211
	evm.model.chr1.2189	HIGH_1	HIGH	250.8697	0.3846
	evm.model.chr1.2189	HIGH_2	HIGH	70.4586	0.1176
	evm.model.chr1.2189	HIGH_3	HIGH	110.7711	0.2286
MSTRG.1789	MSTRG.1789.1	CTR1	CTR	54.1146	0.2048
	MSTRG.1789.1	CTR2	CTR	115.5886	0.1281
	MSTRG.1789.1	CTR3	CTR	197.932	0.1509
	MSTRG.1789.1	CTR4	CTR	209.5269	0.2586
	MSTRG.1789.1	CTR5	CTR	61.2028	0.1053
	MSTRG.1789.1	HIGH_1	HIGH	225.7827	0.3462

	MSTRG.1789.1	HIGH_2	HIGH	264.2196	0.4412
	MSTRG.1789.1	HIGH_3	HIGH	138.4639	0.2857
MSTRG.1789	MSTRG.1789.2	CTR1	CTR	25.4657	0.0964
	MSTRG.1789.2	CTR2	CTR	57.7943	0.064
	MSTRG.1789.2	CTR3	CTR	70.2461	0.0535
	MSTRG.1789.2	CTR4	CTR	111.7477	0.1379
	MSTRG.1789.2	CTR5	CTR	198.909	0.3421
	MSTRG.1789.2	HIGH_1	HIGH	100.3479	0.1538
	MSTRG.1789.2	HIGH_2	HIGH	35.2293	0.0588
	MSTRG.1789.2	HIGH_3	HIGH	96.9247	0.2
MSTRG.1789	MSTRG.1789.3	CTR1	CTR	gru.28	0.0482
	MSTRG.1789.3	CTR2	CTR	43.3108	0.048
	MSTRG.1789.3	CTR3	CTR	76.6492	0.0584
	MSTRG.1789.3	CTR4	CTR	27.9369	0.0345
	MSTRG.1789.3	CTR5	CTR	45.9021	0.0789
	MSTRG.1789.3	HIGH_1	HIGH	50.1739	0.0769
	MSTRG.1789.3	HIGH_2	HIGH	176.1464	0.2941
	MSTRG.1789.3	HIGH_3	HIGH	83.0784	0.1714
MSTRG.1789	MSTRG.1789.4	CTR1	CTR	15.9161	0.0602
	MSTRG.1789.4	CTR2	CTR	lip.68	0.008
	MSTRG.1789.4	CTR3	CTR	25.5497	0.0195
	MSTRG.1789.4	CTR4	CTR	69.8423	0.0862
	MSTRG.1789.4	CTR5	CTR	30.6014	0.0526
	MSTRG.1789.4	HIGH_1	HIGH	25.087	0.0385
	MSTRG.1789.4	HIGH_2	HIGH	52.8439	0.0882
	MSTRG.1789.4	HIGH_3	HIGH	27.6928	0.0571
MSTRG.1789	MSTRG.1789.5	CTR1	CTR	0.0	0.0
	MSTRG.1789.5	CTR2	CTR	20.9907	0.0233
	MSTRG.1789.5	CTR3	CTR	0.0	0.0
	MSTRG.1789.5	CTR4	CTR	13.9685	0.0172
	MSTRG.1789.5	CTR5	CTR	0.0	0.0
	MSTRG.1789.5	HIGH_1	HIGH	0.0	0.0
	MSTRG.1789.5	HIGH_2	HIGH	0.0	0.0

MSTRG.1789.5	HIGH_3	HIGH	27.6928	0.0571
--------------	--------	------	---------	--------

**Supplementary Table 4. Genes with polyA tail length difference in Riccia fluitans thallus after high-dose micro-/nanoplastic treatment**

Gene_ID	mean CTR	mean HIGH	diff_polyA length	cohen cohen_d	cohen effect	padj	Log2FC	Marchantia Gene.ID	Percentage coverage	INSD_ID	Perc	Arabidopsis geneID	Arabidopsis Ident	Arabidopsis description	Arabidopsis gene_ID	Arabidopsis coverage
MSTRG.10093	97,915	73,753	-24,16	0,381379	medium	1,21E-06	-0,40883	Mp3g03990	82,881	PTQ44036	0,995833	AT2G39730	74,115	rubisco activase [Source:NCBI gene (formerly Entrezgene);Acc:818558]	RCA	0,94514768
MSTRG.10096	64,344	36,061	-28,28	0,498334	medium	4,31E-28	-0,83539	Mp2g16300	91,827	PTQ30605	0,945455	AT5G59240	79,803	Ribosomal protein S8e family protein [Source:NCBI gene (formerly Entrezgene);Acc:836042]	AT5G59240	0,92857143
MSTRG.10180	75,686	61,513	-14,17	0,22874	medium	0,004711	-0,29913	Mp3g05840	83,721	PTQ48015	0,871622	AT1G79040	59,167	photosystem II subunit R [Source:NCBI gene (formerly Entrezgene);Acc:844245]	PSBR	0,84285714
MSTRG.10292	84,392	44,605	-39,79	0,506128	large	0,009584	-0,91989	NA	NA	NA	NA	NA	NA	NA	NA	NA
MSTRG.10599	90,122	20,450	-69,67	0,863657	large	0,032776	-2,13979	Mp3g00870	84,308	PTQ47641	0,998571	AT5G13560	36,62	structural maintenance of chromosomes protein [Source:NCBI gene (formerly Entrezgene);Acc:831200]	AT5G13560	0,99852725
MSTRG.10660	108,424	71,689	-36,74	0,460433	medium	0,018966	-0,59686	NA	NA	NA	NA	NA	NA	NA	NA	NA
MSTRG.10907	77,566	62,694	-14,87	0,231879	medium	2,79E-07	-0,3071	Mp4g15080	81,081	PTQ30828	0,808743	AT1G67090	62,406	ribulose biphosphate carboxylase small chain 1A [Source:NCBI gene (formerly Entrezgene);Acc:843029]	RBCS1A	0,73333333
MSTRG.10923	75,281	55,707	-19,57	0,334154	medium	8,81E-07	-0,43443	Mp4g06050	80,392	PTQ31242	0,836066	AT1G67090	62,406	ribulose biphosphate carboxylase small chain 1A [Source:NCBI gene (formerly Entrezgene);Acc:843029]	RBCS1A	0,73333333
MSTRG.10929	70,329	56,053	-14,28	0,247682	medium	0,002253	-0,32734	Mp4g06050	81,046	PTQ31242	0,836066	AT1G67090	62,406	ribulose biphosphate carboxylase small chain 1A [Source:NCBI gene (formerly Entrezgene);Acc:843029]	RBCS1A	0,73333333
MSTRG.10930	80,947	66,936	-14,01	0,231984	medium	3,76E-08	-0,27419	Mp4g06050	80,128	PTQ31242	0,852459	AT1G67090	62,406	ribulose biphosphate carboxylase small chain 1A [Source:NCBI gene (formerly Entrezgene);Acc:843029]	RBCS1A	0,73333333
MSTRG.10931	82,369	46,051	-36,32	0,623323	large	5,39E-16	-0,83887	Mp4g06050	79,487	PTQ31242	0,852459	AT1G67090	64,341	ribulose biphosphate carboxylase small chain 1A [Source:NCBI gene (formerly Entrezgene);Acc:843029]	RBCS1A	0,71111111
MSTRG.11548	79,671	58,705	-20,97	0,387719	medium	0,017524	-0,44058	Mp4g00930	91,513	PTQ36092	0,967857	AT1G61520	81,897	PSI type III chlorophyll a/b-binding protein [Source:NCBI gene (formerly Entrezgene);Acc:842446]	LHCA3	0,84981685
MSTRG.11699	77,098	62,602	-14,50	0,263317	medium	0,004855	-0,30048	Mp4g02720	79,141	PTQ34404	1	AT1G76100	42,105	plastocyanin 1 [Source:NCBI gene (formerly Entrezgene);Acc:843942]	PETE1	1

MSTRG.11863	90,374	58,574	-31,80	0,517769	large	0,020195	-0,62565	Mp5g00480	65,049	PTQ34645	1	AT5G40370	70,192	Glutaredoxin family protein [Source:NCBI gene (formerly Entrezgene);Acc:834035]	GRXC2	0,93693694
MSTRG.13315	67,607	112,644	45,04	0,745764	large	0,000582	0,736529	NA	NA	NA	NA	NA	NA	NA	NA	NA
MSTRG.1401	93,562	55,550	-38,01	0,502274	large	0,006069	-0,75214	NA	NA	NA	NA	NA	NA	NA	NA	NA
MSTRG.14027	73,134	49,944	-23,19	0,365332	medium	0,03136	-0,55021	Mp5g19870	89,351	PTQ27329	1	AT4G04640	79,154	ATPase, F1 complex, gamma subunit protein [Source:NCBI gene (formerly Entrezgene);Acc:825797]	ATPC1	0,88739946
MSTRG.14033	35,344	30,681	-4,66	0,077794	small	3,51E-28	-0,20415	NA	NA	NA	NA	NA	NA	NA	NA	NA
MSTRG.14355	101,020	79,971	-21,05	0,315812	medium	0,027961	-0,33708	Mp6g19070	58,647	PTQ39516	0,872093	AT3G14360	40,664	alpha/beta-Hydrolases superfamily protein [Source:NCBI gene (formerly Entrezgene);Acc:820657]	AT3G14360	0,87258687
MSTRG.14442	67,585	45,578	-22,01	0,319356	medium	9,07E-06	-0,56838	NA	NA	NA	NA	NA	NA	NA	NA	NA
MSTRG.15091	76,142	21,286	-54,86	0,943284	large	0,025087	-1,83881	Mp6g00590	71,501	PTQ31968	0,967901	AT5G23060	44,543	calcium sensing receptor [Source:NCBI gene (formerly Entrezgene);Acc:832370]	CaS	0,87338501
MSTRG.15223	78,976	20,077	-58,90	1,00734	large	0,017524	-1,97588	Mp6g17130	88,241	PTQ29280	0,878199	AT5G25060	67,945	RNA recognition motif (RRM)-containing protein [Source:NCBI gene (formerly Entrezgene);Acc:832577]	RRC1	0,7167019
MSTRG.1565	102,387	21,429	-80,96	0,968912	large	0,029806	-2,25642	Mp1g26280	83,465	PTQ49800	1	AT5G36790	73,817	Haloacid dehalogenase-like hydrolase (HAD) superfamily protein [Source:NCBI gene (formerly Entrezgene);Acc:833646]	AT5G36790	0,87569061
MSTRG.16217	76,563	27,615	-48,95	1,019436	large	0,040939	-1,47117	Mp4g00350	92,929	PTQ36158	1	AT1G65700	80,612	Small nuclear ribonucleoprotein family protein [Source:NCBI gene (formerly Entrezgene);Acc:842881]	LSM8	1
MSTRG.16614	106,192	53,615	-52,58	0,779234	large	4,24E-05	-0,98596	Mp5g04090	65,728	PTQ29437	0,990698	AT2G30870	47,222	glutathione S-transferase PHI 10 [Source:NCBI gene (formerly Entrezgene);Acc:817637]	GSTF10	0,99534884
MSTRG.1679	91,097	25,067	-66,03	0,810726	large	0,009584	-1,86163	Mp1g26230	75	PTQ49805	1	AT2G43320	45,875	S-adenosyl-L-methionine-dependent methyltransferases superfamily protein [Source:NCBI gene (formerly Entrezgene);Acc:818933]	AT2G43320	0,83475783
MSTRG.17617	91,215	67,376	-23,84	0,372081	medium	4,47E-08	-0,43704	Mp7g05880	92,509	PTQ37465	1	AT2G05100	79,401	photosystem II light harvesting complex protein 2.1 [Source:NCBI gene (formerly Entrezgene);Acc:815058]	LHCB2.1	1

MSTRG.17620	93,813	62,058	-31,75	0,476241	medium	0,008402	-0,59617	Mp7g05980	90,226	PTQ37438	1	AT2G05100	78,947	photosystem II light harvesting complex protein 2.1 [Source:NCBI gene (formerly Entrezgene);Acc:815058]	LHCB2.1	1
MSTRG.17622	80,804	66,308	-14,50	0,249328	medium	0,033162	-0,28525	Mp7g05890	91,729	PTQ37464	1	AT3G27690	78,277	photosystem II light harvesting complex protein 2.3 [Source:NCBI gene (formerly Entrezgene);Acc:822391]	LHCB2.3	1
MSTRG.18014	82,962	52,659	-30,30	0,554089	large	0,007621	-0,65579	Mp5g16260	56,531	PTQ27738	0,823636	AT5G42650	45,342	allene oxide synthase [Source:NCBI gene (formerly Entrezgene);Acc:834273]	AOS	0,90540541
MSTRG.18264	68,090	74,234	6,14	0,107752	small	0,040939	0,124654	Mp7g06770	90,602	PTQ27424	1	AT2G05100	79,623	photosystem II light harvesting complex protein 2.1 [Source:NCBI gene (formerly Entrezgene);Acc:815058]	LHCB2.1	1
MSTRG.19323	66,696	53,449	-13,25	0,250708	medium	0,018346	-0,31944	NA	NA	NA	NA	NA	NA	NA	NA	NA
MSTRG.20086	82,642	42,474	-40,17	0,555218	large	0,031714	-0,96031	Mp8g01550	81,818	PTQ36359	0,985694	AT5G57190	59,385	phosphatidylserine decarboxylase 2 [Source:NCBI gene (formerly Entrezgene);Acc:835825]	PSD2	0,96220472
MSTRG.20702	75,340	58,256	-17,08	0,276378	medium	0,007621	-0,37102	Mp8g01210	94	PTQ36398	1	AT1G08380	61,806	photosystem I subunit O [Source:NCBI gene (formerly Entrezgene);Acc:837358]	PSAO	0,98571429
MSTRG.20729	32,017	89,769	57,75	1,827241	large	0,004043	1,487372	NA	NA	NA	NA	NA	NA	NA	NA	NA
MSTRG.20952	71,866	20,087	-51,78	0,709439	large	0,010738	-1,83905	Mp8g17710	80,301	PTQ42375	0,906203	AT1G80030	59,122	Molecular chaperone Hsp40/DnaJ family protein [Source:NCBI gene (formerly Entrezgene);Acc:844343]	AT1G80030	0,86213992
MSTRG.2101	74,458	58,779	-15,68	0,235891	medium	2,21E-07	-0,34112	Mp1g25670	71,523	PTQ49869	0,814208	AT4G01150	57,037	CURVATURE THYLAKOID 1A-like protein [Source:NCBI gene (formerly Entrezgene);Acc:828181]	AT4G01150	0,79878049
MSTRG.21398	64,433	42,541	-21,89	0,310734	medium	1,25E-05	-0,59893	NA	NA	NA	NA	NA	NA	NA	NA	NA
MSTRG.21697	69,697	51,026	-18,67	0,206935	medium	0,005043	-0,44985	Mp8g17190	85,817	PTQ42306	0,964455	AT2G26900	79,133	Sodium Bile acid symporter family [Source:NCBI gene (formerly Entrezgene);Acc:817231]	BASS2	0,89242054
MSTRG.22000	30,456	27,639	-2,82	0,047717	small	0,017524	-0,14004	NA	NA	NA	NA	NA	NA	NA	NA	NA
MSTRG.22001	33,381	28,150	-5,23	0,085861	small	0,000856	-0,24588	NA	NA	NA	NA	NA	NA	NA	NA	NA
MSTRG.22072	34,395	30,010	-4,39	0,069052	small	0,005678	-0,19677	NA	NA	NA	NA	NA	NA	NA	NA	NA
MSTRG.22082	36,139	32,672	-3,47	0,05625	small	0,025087	-0,1455	NA	NA	NA	NA	NA	NA	NA	NA	NA
MSTRG.22180	47,441	103,133	55,69	1,497133	large	0,00594	1,120299	Mp8g07700	64,23	PTQ45767	0,997382	AT1G79310	35,266	metacaspase 7 [Source:NCBI gene (formerly Entrezgene);Acc:844269]	MC7	0,99751861

MSTRG.2292	88,504	47,682	-40,82	0,550697	large	0,020195	-0,8923	Mp1g01210	93,817	PTQ42624	0,98153	AT4G18360	79,437	Aldolase-type TIM barrel family protein [Source:NCBI gene (formerly Entrezgene);Acc:827563]	GOX3	0,96467391
MSTRG.2913	71,175	86,544	15,37	0,248499	medium	0,005678	0,282073	Mp6g00480	56,688	PTQ31982	0,907514	AT2G16060	52,597	hemoglobin 1 [Source:NCBI gene (formerly Entrezgene);Acc:816103]	HB1	0,95
MSTRG.3622	83,594	66,513	-17,08	0,283586	medium	4,71E-05	-0,32977	Mp1g29620	92,885	PTQ29535	0,94403	AT2G05070	77,866	photosystem II light harvesting complex protein 2.2 [Source:NCBI gene (formerly Entrezgene);Acc:815055]	LHCB2.2	0,95471698
MSTRG.3734	82,896	42,955	-39,94	0,549443	large	0,02175	-0,94849	NA	NA	NA	NA	NA	NA	NA	NA	NA
MSTRG.3753	82,736	30,273	-52,46	0,749214	large	0,034138	-1,45049	NA	NA	NA	NA	NA	NA	NA	NA	NA
MSTRG.4325	88,197	43,826	-44,37	0,719764	large	0,033162	-1,00894	NA	NA	NA	NA	NA	NA	NA	NA	NA
MSTRG.4969	87,569	32,500	-55,07	0,751849	large	3,76E-07	-1,42999	Mp2g13120	98,065	PTQ43179	1	AT1G14400	55,705	ubiquitin carrier protein 1 [Source:NCBI gene (formerly Entrezgene);Acc:838002]	UBC1	0,97368421
MSTRG.5435	54,880	52,890	-1,99	0,039892	small	0,025087	-0,05329	NA	NA	NA	NA	NA	NA	NA	NA	NA
MSTRG.5453	72,809	57,457	-15,35	0,267115	medium	6,56E-05	-0,34164	Mp2g15250	67,48	PTQ34171	0,86014	AT1G60950	59,836	2Fe-2S ferredoxin-like superfamily protein [Source:NCBI gene (formerly Entrezgene);Acc:842386]	FED A	0,82432432
MSTRG.5483	66,941	47,578	-19,36	0,394039	medium	0,047378	-0,4926	NA	NA	NA	NA	NA	NA	NA	NA	NA
MSTRG.6656	101,439	62,478	-38,96	0,557716	large	0,023484	-0,6992	NA	NA	NA	NA	NA	NA	NA	NA	NA
MSTRG.6668	67,627	44,628	-23,00	0,401553	medium	3,76E-08	-0,59966	Mp2g26040	77,576	PTQ43383	0,976331	AT3G16640	75,152	translationally controlled tumor protein [Source:NCBI gene (formerly Entrezgene);Acc:820916]	TCTP	0,98214286
MSTRG.6768	44,579	88,955	44,38	0,807677	large	8,26E-07	0,996694	Mp2g18420	73,731	PTQ28010	0,928131	AT1G01300	41,355	Eukaryotic aspartyl protease family protein [Source:NCBI gene (formerly Entrezgene);Acc:839375]	AT1G01300	0,83505155
MSTRG.6859	94,865	64,022	-30,84	0,434511	medium	0,047901	-0,5673	NA	NA	NA	NA	NA	NA	NA	NA	NA
MSTRG.7289	65,852	84,273	18,42	0,232355	medium	0,025087	0,355837	Mp2g24510	82,766	PTQ26995	1	AT3G02630	66,998	Plant stearoyl-acyl-carrier-protein desaturase family protein [Source:NCBI gene (formerly Entrezgene);Acc:820773]	AT3G02630	0,99494949
MSTRG.7379	71,843	80,385	8,54	0,145233	small	0,025087	0,162082	NA	NA	NA	NA	NA	NA	NA	NA	NA
MSTRG.7635	135,600	73,184	-62,42	0,880876	large	3,15E-05	-0,88975	NA	NA	NA	NA	NA	NA	NA	NA	NA
MSTRG.7830	77,424	41,941	-35,48	0,55879	large	0,02175	-0,88441	NA	NA	NA	NA	NA	NA	NA	NA	NA
MSTRG.9204	92,307	34,300	-58,01	1,111084	large	0,022193	-1,42823	Mp3g18890	83,172	PTQ29375	1	AT4G14680	76,123	Pseudouridine synthase/archaeosine transglycosylase-like family protein [Source:NCBI gene (formerly Entrezgene);Acc:827118]	APS3	0,90967742

MSTRG.9279	83,207	11,250	-71,96	1,035317	large	0,027629	-2,88678	Mp3g18020	93,934	PTQ29511	0,978261	AT5G18610	67,167	Protein kinase superfamily protein [Source:NCBI gene (formerly Entrezgene);Acc:831979]	AT5G18610	0,97660819
MSTRG.938	71,375	55,454	-15,92	0,27595	medium	0,000749	-0,36414	Mp1g23580	83,051	PTQ36199	0,967213	AT3G06680	73,333	Ribosomal L29e protein family [Source:NCBI gene (formerly Entrezgene);Acc:819853]	AT3G06680	0,96721311
MSTRG.9729	97,674	38,077	-59,60	1,042671	large	0,031714	-1,35906	Mp3g11460	77,014	PTQ40870	1	AT2G05990	81,973	NAD(P)-binding Rossmann-fold superfamily protein [Source:NCBI gene (formerly Entrezgene);Acc:815152]	MOD1	0,75384615



**Supplementary Table 6 Gene ontology and KEGG pathways annotation of *Riccia fluitans* differentially expressed genes (DEGs) engaged in response to high-dose of micro-/nanoplastic (MNP) pollution**

source	term_name	term_id	adjusted_p	negative_lo	term_size	query_size	intersection	intersections
GO:MF	catalytic activity	GO:0003824	2.41630113	13.6168489	9606	205	145	AT5G05340,AT5G54510,AT2G37050,AT1G69220,AT1G61700,AT4G37270,AT5G04870,AT5G20350,AT1G65930,AT4G29130,AT1G13440,AT5G04040,AT1G36370,AT3G58670,AT1G72030,AT3G54940,AT1G50450,AT4G16600,AT5G56300,AT5G51070,AT5G39040,AT5G38200,AT5G13930,AT2G06990,AT1G56310,AT4G12570,AT2G22910,AT2G34770,AT2G20630,AT2G35840,AT2G37040,AT2G38240,AT2G22240,AT1G27680,AT1G17500,AT4G36750,AT5G18150,AT4G31390,AT1G49340,AT4G27800,AT3G01510,AT4G27030,AT1G07920,AT5G37600,AT1G64680,AT5G54130,AT5G44730,AT1G74960,AT1G78570,AT2G26080,AT3G58690,AT1G07010,AT3G22370,AT2G38110,AT5G59840,AT3G51370,AT5G48300,AT3G51680,AT3G19380,AT4G04955,AT1G64060,AT4G32410,AT4G30310,AT5G05700,AT2G41480,AT3G02470,AT4G38030,AT2G17700,AT5G08650,AT4G01210,AT1G02520,AT5G64120,AT2G39800,AT2G35660,AT5G62220,AT1G17840,AT2G30490,AT1G31910,AT3G52090,AT4G33030,AT5G03860,AT4G21990,AT2G36530,AT1G68560,AT5G13030,AT1G52510,AT1G01040,AT4G18360,AT4G20360,AT5G03940,AT2G42600,AT3G29090,AT5G64940,AT5G48930,AT4G11350,AT5G49740,AT1G32900,AT1G01050,AT1G28440,AT1G62330,AT4G36530,AT5G13650,AT4G24040,AT2G22780,AT1G48130,AT1G07810,AT5G13630,AT1G74380,AT3G54100,AT4G01370,AT4G26270,AT5G19730,AT4G25130,AT4G02280,AT1G76690,AT3G58140,AT3G17020,AT5G55180,AT1G54350,AT1G10630,AT2G32810,AT1G64970,AT3G21720,AT3G15730,AT5G22300,AT4G26850,AT1G54570,AT5G63930,AT4G37870,AT5G57800,AT3G11470,AT2G21070,AT3G52940,AT3G55800,AT2G38960,AT4G02500,AT4G04350,AT1G57590,AT5G06720,AT5G53450,AT4G14680,AT3G07720,AT5G42270,AT2G24270,AT5G13420
GO:MF	small molecule binding	GO:0036094	0.00000276	5.55867702	6804	205	100	AT5G05340,AT2G37050,AT1G69220,AT1G61700,AT4G37270,AT5G04870,AT5G20350,AT1G65930,AT4G29130,AT1G13440,AT1G36370,AT3G58670,AT4G16600,AT5G56300,AT5G51070,AT5G39040,AT5G02500,AT2G06990,AT2G34770,AT5G17170,AT2G20630,AT2G35840,AT2G38240,AT1G27680,AT1G17500,AT4G36750,AT4G31390,AT3G42860,AT1G49340,AT4G27800,AT1G07920,AT5G37600,AT1G64680,AT5G54130,AT2G26080,AT3G58690,AT1G07010,AT3G22370,AT5G59840,AT3G51370,AT5G48300,AT1G24620,AT4G04955,AT1G64060,AT4G32410,AT1G60950,AT2G41480,AT2G17700,AT5G08650,AT3G23660,AT1G02520,AT5G64120,AT2G39800,AT2G35660,AT1G17840,AT2G30490,AT1G31910,AT4G33030,AT4G21990,AT3G47550,AT2G36530,AT5G13030,AT1G01040,AT4G18360,AT4G20360,AT1G77090,AT5G03940,AT5G19420,AT5G64940,AT5G49740,AT1G01050,AT1G28440,AT5G67480,AT5G13650,AT1G07810,AT5G13630,AT4G01370,AT5G35735,AT4G26270,AT1G76690,AT2G47450,AT3G58140,AT1G54350,AT1G10630,AT3G21720,AT3G24430,AT3G15730,AT4G26850,AT5G63930,AT4G37870,AT5G57800,AT3G11470,AT3G52940,AT3G55800,AT2G38960,AT4G04350,AT5G06720,AT5G53450,AT4G14680,AT5G42270

GO:MF	ion binding	GO:0043167	0.00000534	5.27207228	6685	205	98 AT5G05340,AT2G37050,AT1G69220,AT1G61700,AT4G37270,AT5G04870,AT1G65930,AT4G29130,AT1G13440,AT1G36370,AT3G58670,AT4G16600,AT5G56300,AT5G51070,AT5G39040,AT5G02500,AT2G06990,AT2G34770,AT5G17170,AT2G20630,AT2G35840,AT2G38240,AT1G27680,AT1G17500,AT4G36750,AT4G31390,AT3G42860,AT1G49340,AT4G27800,AT1G07920,AT5G37600,AT1G64680,AT5G54130,AT2G26080,AT3G58690,AT1G07010,AT3G22370,AT5G59840,AT3G51370,AT5G48300,AT1G24620,AT4G04955,AT1G64060,AT4G32410,AT1G60950,AT2G41480,AT2G17700,AT5G08650,AT3G23660,AT1G02520,AT5G64120,AT2G39800,AT2G35660,AT1G17840,AT2G30490,AT1G31910,AT4G33030,AT4G21990,AT3G47550,AT2G36530,AT5G13030,AT1G01040,AT4G18360,AT4G20360,AT1G77090,AT5G03940,AT5G19420,AT5G64940,AT5G49740,AT1G01050,AT1G28440,AT5G67480,AT5G13650,AT1G07810,AT5G13630,AT4G01370,AT5G35735,AT4G26270,AT1G76690,AT2G47450,AT3G58140,AT1G54350,AT1G10630,AT3G21720,AT3G24430,AT3G15730,AT4G26850,AT5G63930,AT4G37870,AT5G57800,AT3G11470,AT3G55800,AT2G38960,AT4G04350,AT5G06720,AT5G53450,AT4G14680,AT5G42270
GO:MF	nucleotide binding	GO:0000166	0.00063850	3.19483312	3173	205	54 AT2G37050,AT1G69220,AT4G37270,AT5G04870,AT1G65930,AT4G29130,AT1G13440,AT5G51070,AT5G39040,AT5G02500,AT2G06990,AT1G27680,AT1G17500,AT4G36750,AT4G31390,AT1G07920,AT5G37600,AT2G26080,AT3G58690,AT5G59840,AT5G48300,AT2G17700,AT5G08650,AT1G02520,AT2G39800,AT2G35660,AT1G17840,AT1G31910,AT5G13030,AT1G01040,AT4G18360,AT4G20360,AT5G03940,AT5G64940,AT1G28440,AT5G13650,AT1G07810,AT5G13630,AT4G01370,AT4G26270,AT1G76690,AT3G58140,AT1G54350,AT1G10630,AT3G24430,AT4G26850,AT5G63930,AT4G37870,AT3G52940,AT2G38960,AT4G04350,AT5G53450,AT4G14680,AT5G42270
GO:MF	nucleoside phosphate binding	GO:1901265	0.00067687	3.16949121	3179	205	54 AT2G37050,AT1G69220,AT4G37270,AT5G04870,AT1G65930,AT4G29130,AT1G13440,AT5G51070,AT5G39040,AT5G02500,AT2G06990,AT1G27680,AT1G17500,AT4G36750,AT4G31390,AT1G07920,AT5G37600,AT2G26080,AT3G58690,AT5G59840,AT5G48300,AT2G17700,AT5G08650,AT1G02520,AT2G39800,AT2G35660,AT1G17840,AT1G31910,AT5G13030,AT1G01040,AT4G18360,AT4G20360,AT5G03940,AT5G64940,AT1G28440,AT5G13650,AT1G07810,AT5G13630,AT4G01370,AT4G26270,AT1G76690,AT3G58140,AT1G54350,AT1G10630,AT3G24430,AT4G26850,AT5G63930,AT4G37870,AT3G52940,AT2G38960,AT4G04350,AT5G53450,AT4G14680,AT5G42270
GO:MF	anion binding	GO:0043168	0.00069882	3.15562962	3268	205	55 AT2G37050,AT1G69220,AT4G37270,AT5G04870,AT4G29130,AT1G13440,AT1G36370,AT5G51070,AT5G39040,AT5G02500,AT2G06990,AT1G27680,AT1G17500,AT4G36750,AT4G31390,AT1G49340,AT1G07920,AT5G37600,AT2G26080,AT3G58690,AT5G59840,AT5G48300,AT2G17700,AT5G08650,AT1G02520,AT2G39800,AT2G35660,AT1G17840,AT1G31910,AT5G13030,AT1G01040,AT4G18360,AT4G20360,AT5G03940,AT5G64940,AT1G28440,AT5G13650,AT1G07810,AT5G13630,AT4G01370,AT4G26270,AT1G76690,AT3G58140,AT1G54350,AT1G10630,AT3G24430,AT3G15730,AT4G26850,AT5G63930,AT4G37870,AT2G38960,AT4G04350,AT5G53450,AT4G14680,AT5G42270

GO:MF	heterocyclic compound binding	GO:1901363	0.00101046	2.99548055	3307	205	55 AT2G37050,AT1G69220,AT4G37270,AT5G04870,AT1G65930,AT4G29130,AT1G13440,AT1G36370,AT5G51070,AT5G39040,AT5G02500,AT2G06990,AT1G27680,AT1G17500,AT4G36750,AT4G31390,AT1G07920,AT5G37600,AT2G26080,AT3G58690,AT5G59840,AT5G48300,AT2G17700,AT5G08650,AT1G02520,AT2G39800,AT2G35660,AT1G17840,AT1G31910,AT5G13030,AT1G01040,AT4G18360,AT4G20360,AT5G03940,AT5G64940,AT1G28440,AT5G13650,AT1G07810,AT5G13630,AT4G01370,AT4G26270,AT1G76690,AT3G58140,AT1G54350,AT1G10630,AT3G24430,AT4G26850,AT5G63930,AT4G37870,AT3G52940,AT2G38960,AT4G04350,AT5G53450,AT4G14680,AT5G42270
GO:MF	ribonucleotide binding	GO:0032553	0.00198656	2.70189772	2865	205	49 AT2G37050,AT1G69220,AT4G37270,AT5G04870,AT4G29130,AT5G51070,AT5G39040,AT5G02500,AT2G06990,AT1G27680,AT1G17500,AT4G36750,AT4G31390,AT1G07920,AT5G37600,AT2G26080,AT3G58690,AT5G59840,AT5G48300,AT2G17700,AT5G08650,AT1G02520,AT2G39800,AT1G17840,AT1G31910,AT5G13030,AT1G01040,AT4G18360,AT4G20360,AT5G03940,AT5G64940,AT1G28440,AT5G13650,AT1G07810,AT5G13630,AT4G01370,AT4G26270,AT1G76690,AT3G58140,AT1G54350,AT1G10630,AT3G24430,AT4G26850,AT5G63930,AT4G37870,AT4G04350,AT5G53450,AT4G14680,AT5G42270
GO:MF	carbohydrate derivative binding	GO:0097367	0.00297206	2.52694106	2907	205	49 AT2G37050,AT1G69220,AT4G37270,AT5G04870,AT4G29130,AT5G51070,AT5G39040,AT5G02500,AT2G06990,AT1G27680,AT1G17500,AT4G36750,AT4G31390,AT1G07920,AT5G37600,AT2G26080,AT3G58690,AT5G59840,AT5G48300,AT2G17700,AT5G08650,AT1G02520,AT2G39800,AT1G17840,AT1G31910,AT5G13030,AT1G01040,AT4G18360,AT4G20360,AT5G03940,AT5G64940,AT1G28440,AT5G13650,AT1G07810,AT5G13630,AT4G01370,AT4G26270,AT1G76690,AT3G58140,AT1G54350,AT1G10630,AT3G24430,AT4G26850,AT5G63930,AT4G37870,AT4G04350,AT5G53450,AT4G14680,AT5G42270
GO:MF	oxidoreductase activity	GO:0016491	0.00324040	2.48940083	1475	205	31 AT5G05340,AT1G65930,AT1G13440,AT3G58670,AT1G50450,AT2G34770,AT2G38240,AT4G36750,AT4G27030,AT1G78570,AT2G26080,AT3G22370,AT3G51680,AT1G64060,AT2G41480,AT5G64120,AT2G39800,AT2G35660,AT2G30490,AT4G21990,AT4G18360,AT5G49740,AT2G22780,AT1G48130,AT4G25130,AT1G76690,AT5G57800,AT3G52940,AT2G38960,AT5G06720,AT2G24270
GO:MF	purine nucleotide binding	GO:0017076	0.00537775	2.26939897	2971	205	49 AT2G37050,AT1G69220,AT4G37270,AT5G04870,AT1G65930,AT4G29130,AT1G13440,AT5G51070,AT5G39040,AT5G02500,AT2G06990,AT1G27680,AT1G17500,AT4G31390,AT1G07920,AT5G37600,AT2G26080,AT3G58690,AT5G59840,AT5G48300,AT2G17700,AT5G08650,AT1G02520,AT2G39800,AT1G17840,AT1G31910,AT5G13030,AT1G01040,AT4G20360,AT5G03940,AT5G64940,AT1G28440,AT5G13650,AT1G07810,AT5G13630,AT4G01370,AT4G26270,AT3G58140,AT1G54350,AT1G10630,AT3G24430,AT4G26850,AT5G63930,AT4G37870,AT3G52940,AT4G04350,AT5G53450,AT4G14680,AT5G42270
GO:MF	purine ribonucleoside triphosphate binding	GO:0035639	0.00574361	2.24081450	2722	205	46 AT2G37050,AT1G69220,AT4G37270,AT5G04870,AT4G29130,AT5G51070,AT5G39040,AT5G02500,AT2G06990,AT1G27680,AT1G17500,AT4G31390,AT1G07920,AT5G37600,AT2G26080,AT3G58690,AT5G59840,AT5G48300,AT2G17700,AT5G08650,AT1G02520,AT2G39800,AT1G17840,AT1G31910,AT5G13030,AT1G01040,AT4G20360,AT5G03940,AT5G64940,AT1G28440,AT5G13650,AT1G07810,AT5G13630,AT4G01370,AT4G26270,AT3G58140,AT1G54350,AT1G10630,AT3G24430,AT4G26850,AT5G63930,AT4G37870,AT4G04350,AT5G53450,AT4G14680,AT5G42270

GO:MF	purine ribonucleotide binding	GO:0032555	0.01689438	1.77225756	2841	205	46 AT2G37050,AT1G69220,AT4G37270,AT5G04870,AT4G29130,AT5G51070,AT5G39040,AT5G02500,AT2G06990,AT1G27680,AT1G17500,AT4G31390,AT1G07920,AT5G37600,AT2G26080,AT3G58690,AT5G59840,AT5G48300,AT2G17700,AT5G08650,AT1G02520,AT2G39800,AT1G17840,AT1G31910,AT5G13030,AT1G01040,AT4G20360,AT5G03940,AT5G64940,AT1G28440,AT5G13650,AT1G07810,AT5G13630,AT4G01370,AT4G26270,AT3G58140,AT1G54350,AT1G10630,AT3G24430,AT4G26850,AT5G63930,AT4G37870,AT4G04350,AT5G53450,AT4G14680,AT5G42270
GO:MF	metal ion binding	GO:0046872	0.02211591	1.65529499	3948	205	58 AT5G05340,AT1G61700,AT4G37270,AT5G04870,AT1G65930,AT4G29130,AT1G13440,AT3G58670,AT4G16600,AT5G56300,AT2G34770,AT5G17170,AT2G20630,AT2G35840,AT2G38240,AT1G17500,AT3G42860,AT4G27800,AT5G37600,AT1G64680,AT5G54130,AT1G07010,AT3G22370,AT3G51370,AT1G24620,AT4G04955,AT1G64060,AT4G32410,AT1G60950,AT2G41480,AT3G23660,AT5G64120,AT2G30490,AT4G33030,AT4G21990,AT3G47550,AT2G36530,AT5G13030,AT1G01040,AT1G77090,AT5G19420,AT5G49740,AT1G01050,AT5G67480,AT1G07810,AT5G35735,AT4G26270,AT2G47450,AT1G10630,AT3G21720,AT3G24430,AT3G15730,AT4G37870,AT5G57800,AT3G11470,AT3G55800,AT5G06720,AT5G42270
GO:MF	cation binding	GO:0043169	0.02431090	1.61419883	3961	205	58 AT5G05340,AT1G61700,AT4G37270,AT5G04870,AT1G65930,AT4G29130,AT1G13440,AT3G58670,AT4G16600,AT5G56300,AT2G34770,AT5G17170,AT2G20630,AT2G35840,AT2G38240,AT1G17500,AT3G42860,AT4G27800,AT5G37600,AT1G64680,AT5G54130,AT1G07010,AT3G22370,AT3G51370,AT1G24620,AT4G04955,AT1G64060,AT4G32410,AT1G60950,AT2G41480,AT3G23660,AT5G64120,AT2G30490,AT4G33030,AT4G21990,AT3G47550,AT2G36530,AT5G13030,AT1G01040,AT1G77090,AT5G19420,AT5G49740,AT1G01050,AT5G67480,AT1G07810,AT5G35735,AT4G26270,AT2G47450,AT1G10630,AT3G21720,AT3G24430,AT3G15730,AT4G37870,AT5G57800,AT3G11470,AT3G55800,AT5G06720,AT5G42270
GO:MF	transferase activity	GO:0016740	0.02466591	1.60790279	3963	205	58 AT2G37050,AT1G69220,AT1G61700,AT5G04870,AT5G20350,AT4G29130,AT1G36370,AT1G72030,AT4G16600,AT5G56300,AT5G13930,AT1G56310,AT4G12570,AT2G22910,AT1G27680,AT5G18150,AT4G31390,AT1G49340,AT1G74960,AT1G78570,AT3G58690,AT2G38110,AT5G48300,AT3G19380,AT4G32410,AT4G30310,AT5G05700,AT2G17700,AT4G01210,AT2G39800,AT5G62220,AT1G31910,AT3G52090,AT4G33030,AT5G03860,AT5G13030,AT5G64940,AT5G48930,AT4G11350,AT1G32900,AT1G28440,AT1G62330,AT1G74380,AT3G54100,AT4G01370,AT4G26270,AT4G02280,AT1G64970,AT4G26850,AT1G54570,AT5G63930,AT4G37870,AT3G11470,AT2G21070,AT4G02500,AT5G53450,AT4G14680,AT5G13420

GO:BP	cellular process	GO:0009987	5.74640865	8.24060349	16591	190	179	AT5G05340,AT5G48800,AT5G54510,AT2G37050,AT1G69220,AT1G661700,AT5G63190,AT4G37270,AT5G04870,AT5G20350,AT1G65930,AT4G29130,AT1G13440,AT5G04040,AT3G04090,AT1G36370,AT3G58670,AT1G72030,AT3G54940,AT5G56300,AT5G51070,AT5G39040,AT1G55480,AT5G02500,AT5G38200,AT5G13930,AT2G06990,AT1G56310,AT4G12570,AT3G27020,AT2G22910,AT2G34770,AT2G20630,AT2G35840,AT2G25800,AT1G27350,AT3G59340,AT2G37040,AT2G38240,AT2G22240,AT1G27680,AT1G17500,AT5G18150,AT4G31390,AT1G49340,AT4G27800,AT3G01510,AT5G23060,AT1G12360,AT4G27030,AT2G15890,AT1G07920,AT1G32500,AT5G37600,AT4G27410,AT2G47900,AT5G44730,AT2G19600,AT1G74960,AT1G78570,AT2G26080,AT3G58690,AT5G25400,AT3G22370,AT2G38110,AT3G51370,AT3G43540,AT5G48300,AT1G24620,AT3G19380,AT4G04955,AT1G64060,AT4G32410,AT1G60950,AT4G30310,AT5G05700,AT5G64260,AT1G69800,AT2G41480,AT3G02470,AT4G38030,AT2G17700,AT5G08650,AT3G23660,AT1G02520,AT3G61320,AT5G64120,AT2G39800,AT5G62220,AT1G30360,AT1G17840,AT2G30490,AT1G31910,AT5G33320,AT2G25490,AT3G52090,AT4G33030,AT2G47600,AT5G03860,AT4G21990,AT2G36530,AT1G68560,AT4G00680,AT1G01040,AT4G18360,AT4G20360,AT1G77090,AT5G03940,AT2G42600,AT3G29090,AT5G64940,AT5G48930,AT5G43430,AT5G49740,AT5G56320,AT1G32900,AT1G01050,AT1G28440,AT1G62330,AT1G28100,AT1G05940,AT5G67480,AT5G13650,AT4G30510,AT4G24040,AT2G22780,AT1G48130,AT1G07810,AT5G13630,AT1G74380,AT3G54100,AT4G01370,AT5G35735,AT2G28800,AT4G26270,AT5G19730,AT4G25130,AT4G02280,AT1G76690,AT2G47450,AT3G58140,AT3G03800,AT5G55180,AT1G54350,AT5G43350,AT1G10630,AT2G32810,AT1G64970,AT2G37970,AT3G21720,AT3G24430,AT5G41610,AT3G15730,AT5G22300,AT4G26850,AT1G54570,AT5G63930,AT4G37870,AT1G71790,AT1G75850,AT5G57800,AT3G11470,AT2G21070,AT3G52940,AT3G55800,AT2G38960,AT4G02500,AT4G04350,AT1G57590,AT5G06720,AT1G12110,AT5G53450,AT2G23810,AT4G14680,AT3G07720,AT3G29030,AT5G61380,AT5G42270,AT5G13420
GO:BP	carbohydrate metabolic process	GO:0005975	1.42768137	7.84536870	1101	190	35	AT5G20350,AT4G29130,AT1G13440,AT5G04040,AT2G35840,AT1G27680,AT3G01510,AT5G48300,AT4G32410,AT4G30310,AT1G69800,AT4G38030,AT5G62220,AT5G03860,AT2G36530,AT1G68560,AT3G29090,AT1G32900,AT1G01050,AT1G62330,AT4G24040,AT2G22780,AT1G74380,AT3G54100,AT4G26270,AT5G19730,AT4G02280,AT5G55180,AT2G32810,AT3G21720,AT4G26850,AT4G37870,AT3G55800,AT4G02500,AT5G13420
GO:BP	generation of precursor metabolites and energy	GO:0006091	4.45170681	6.35147344	462	190	21	AT1G65930,AT4G29130,AT1G13440,AT1G55480,AT1G27680,AT4G31390,AT4G27800,AT3G22370,AT5G48300,AT1G60950,AT3G61320,AT5G03860,AT2G36530,AT2G42600,AT5G43430,AT5G49740,AT2G22780,AT4G26270,AT3G21720,AT5G42270,AT5G13420
GO:BP	small molecule metabolic process	GO:0044281	0.00000642	5.19226597	1595	190	38	AT1G65930,AT4G29130,AT1G13440,AT5G04040,AT1G36370,AT5G38200,AT2G22910,AT2G34770,AT2G37040,AT2G22240,AT4G27030,AT5G37600,AT1G74960,AT1G78570,AT2G26080,AT4G04955,AT2G39800,AT2G30490,AT1G31910,AT5G03860,AT4G21990,AT2G36530,AT5G43430,AT1G62330,AT2G22780,AT3G54100,AT4G26270,AT1G76690,AT1G64970,AT3G21720,AT3G15730,AT4G26850,AT1G54570,AT4G37870,AT3G11470,AT1G12110,AT3G07720,AT5G13420
GO:BP	glucan metabolic process	GO:0044042	0.00005058	4.29598274	222	190	13	AT5G20350,AT1G27680,AT3G01510,AT5G48300,AT4G32410,AT5G62220,AT1G68560,AT1G32900,AT1G01050,AT1G74380,AT4G02280,AT3G55800,AT4G02500

GO:BP	response to abiotic stimulus	GO:0009628	0.00007154	4.14544869	2131	190	43	AT5G63190,AT4G37270,AT1G13440,AT3G58670,AT1G55480,AT5G02500,AT5G13930,AT2G37040,AT4G31390,AT5G23060,AT2G15890,AT4G27410,AT2G47900,AT5G44730,AT1G74960,AT3G22370,AT5G48300,AT1G64060,AT4G32410,AT1G60950,AT5G64260,AT2G39800,AT1G17840,AT2G36530,AT5G13030,AT5G64940,AT5G67480,AT5G13650,AT1G48130,AT4G01370,AT5G35735,AT4G26270,AT4G25130,AT4G02280,AT2G47450,AT3G17020,AT2G37970,AT4G26850,AT1G71790,AT2G21070,AT1G12110,AT5G53450,AT5G42270
GO:BP	protein trimerization	GO:0070206	0.00012493	3.90331984	7	190	4	AT5G03940,AT2G28800,AT2G47450,AT4G14680
GO:BP	response to chemical	GO:0042221	0.00016548	3.78123203	2940	190	52	AT5G05340,AT5G54510,AT1G65930,AT4G29130,AT1G13440,AT1G36370,AT3G58670,AT5G39040,AT5G13930,AT4G12570,AT2G37040,AT4G35770,AT2G38240,AT2G22240,AT4G31390,AT5G23060,AT2G15890,AT4G27410,AT2G47900,AT5G44730,AT1G78570,AT1G64060,AT5G05700,AT5G64260,AT2G41480,AT5G13200,AT5G64120,AT2G39800,AT1G17840,AT2G25490,AT2G36530,AT1G68560,AT5G13030,AT5G64940,AT5G67480,AT5G13650,AT1G48130,AT1G07810,AT4G01370,AT5G35735,AT4G26270,AT4G25130,AT4G02280,AT3G15730,AT5G22300,AT4G26850,AT5G06720,AT1G12110,AT2G23810,AT3G07720,AT5G61380,AT5G13420
GO:BP	protein heterotrimerization	GO:0070208	0.00042709	3.36947738	3	190	3	AT5G03940,AT2G28800,AT2G47450
GO:BP	response to stimulus	GO:0050896	0.00061245	3.21292894	6001	190	83	AT5G05340,AT5G54510,AT1G69220,AT5G63190,AT4G37270,AT1G65930,AT4G29130,AT1G13440,AT1G36370,AT3G58670,AT5G39040,AT1G55480,AT5G02500,AT5G13930,AT4G12570,AT1G27350,AT2G37040,AT4G35770,AT2G38240,AT2G22240,AT4G31390,AT1G49340,AT5G23060,AT2G15890,AT4G27410,AT2G47900,AT5G44730,AT1G74960,AT1G78570,AT3G22370,AT5G48300,AT3G19380,AT4G04955,AT1G64060,AT4G32410,AT1G60950,AT5G05700,AT5G64260,AT2G41480,AT5G13200,AT5G64120,AT2G39800,AT1G17840,AT2G25490,AT4G33030,AT2G36530,AT1G68560,AT5G13030,AT1G01040,AT4G18360,AT3G29090,AT5G64940,AT5G67480,AT5G13650,AT1G48130,AT1G07810,AT4G01370,AT5G35735,AT4G26270,AT5G06990,AT4G25130,AT4G02280,AT1G76690,AT2G47450,AT3G17020,AT5G43350,AT2G37970,AT3G15730,AT5G22300,AT4G26850,AT1G54570,AT4G37870,AT1G71790,AT2G21070,AT5G06720,AT1G12110,AT5G53450,AT2G23810,AT4G14680,AT3G07720,AT5G61380,AT5G42270,AT5G13420
GO:BP	response to oxidative stress	GO:0006979	0.00068496	3.16433116	426	190	16	AT5G05340,AT5G13930,AT4G12570,AT1G27350,AT2G37040,AT4G35770,AT4G31390,AT2G47900,AT2G41480,AT5G64120,AT2G39800,AT5G64940,AT5G67480,AT5G13650,AT4G25130,AT5G06720
GO:BP	response to stress	GO:0006950	0.00090938	3.04125339	3733	190	59	AT5G05340,AT1G69220,AT5G63190,AT1G65930,AT1G13440,AT3G58670,AT1G55480,AT5G02500,AT5G13930,AT4G12570,AT1G27350,AT2G37040,AT4G35770,AT2G38240,AT2G22240,AT4G31390,AT2G15890,AT4G27410,AT2G47900,AT5G44730,AT1G74960,AT3G22370,AT3G19380,AT4G04955,AT1G64060,AT4G32410,AT5G05700,AT5G64260,AT2G41480,AT5G64120,AT2G39800,AT1G17840,AT4G33030,AT2G36530,AT5G13030,AT1G01040,AT4G18360,AT3G29090,AT5G64940,AT5G67480,AT5G13650,AT1G48130,AT4G01370,AT5G35735,AT4G26270,AT4G25130,AT4G02280,AT1G76690,AT3G17020,AT5G43350,AT4G26850,AT1G54570,AT4G37870,AT1G71790,AT5G06720,AT2G21070,AT5G53450,AT2G23810,AT4G14680

GO:BP	oxoacid metabolic process	GO:0043436	0.00126231	2.89883099	1067	190	26	AT1G65930,AT4G29130,AT1G13440,AT1G36370,AT5G38200,AT2G22910,AT2G34770,AT2G37040,AT4G27030,AT5G37600,AT1G74960,AT2G26080,AT2G39800,AT5G03860,AT4G21990,AT2G36530,AT5G43430,AT2G22780,AT4G26270,AT1G76690,AT3G21720,AT3G15730,AT4G26850,AT3G11470,AT1G12110,AT3G07720
GO:BP	organic acid metabolic process	GO:0006082	0.00128418	2.89137197	1068	190	26	AT1G65930,AT4G29130,AT1G13440,AT1G36370,AT5G38200,AT2G22910,AT2G34770,AT2G37040,AT4G27030,AT5G37600,AT1G74960,AT2G26080,AT2G39800,AT5G03860,AT4G21990,AT2G36530,AT5G43430,AT2G22780,AT4G26270,AT1G76690,AT3G21720,AT3G15730,AT4G26850,AT3G11470,AT1G12110,AT3G07720
GO:BP	starch metabolic process	GO:0005982	0.00182385	2.73900889	71	190	7	AT1G27680,AT3G01510,AT5G48300,AT1G32900,AT1G01050,AT4G02280,AT3G55800
GO:BP	carboxylic acid metabolic process	GO:0019752	0.00192841	2.71479970	955	190	24	AT1G65930,AT4G29130,AT1G13440,AT1G36370,AT5G38200,AT2G22910,AT2G34770,AT2G37040,AT4G27030,AT5G37600,AT1G74960,AT2G26080,AT2G39800,AT5G03860,AT4G21990,AT2G36530,AT5G43430,AT2G22780,AT4G26270,AT1G76690,AT3G21720,AT3G15730,AT4G26850,AT3G11470
GO:BP	response to starvation	GO:0042594	0.00296034	2.52865791	182	190	10	AT5G63190,AT2G22240,AT4G31390,AT4G04955,AT4G33030,AT5G64940,AT5G43350,AT1G54570,AT4G37870,AT4G14680
GO:BP	catabolic process	GO:0009056	0.00544374	2.26410223	1378	190	29	AT5G05340,AT4G29130,AT1G13440,AT5G04040,AT2G06990,AT1G56310,AT2G37040,AT4G31390,AT3G01510,AT2G26080,AT4G04955,AT5G05700,AT2G41480,AT5G64120,AT2G25490,AT2G36530,AT1G68560,AT1G01040,AT3G29090,AT5G43430,AT4G30510,AT4G24040,AT2G22780,AT4G26270,AT5G19730,AT3G15730,AT5G06720,AT3G07720,AT5G42270
GO:BP	protein heterooligomerization	GO:0051291	0.00837902	2.07680630	6	190	3	AT5G03940,AT2G28800,AT2G47450
GO:BP	polysaccharide metabolic process	GO:0005976	0.00889784	2.05071493	463	190	15	AT5G20350,AT1G27680,AT3G01510,AT5G48300,AT4G32410,AT5G62220,AT1G68560,AT3G29090,AT1G32900,AT1G01050,AT1G74380,AT5G19730,AT4G02280,AT3G55800,AT4G02500
GO:BP	energy derivation by oxidation of organic compounds	GO:0015980	0.01423794	1.84655266	133	190	8	AT1G65930,AT1G27680,AT3G22370,AT5G48300,AT5G03860,AT2G42600,AT2G22780,AT3G21720
GO:BP	glyoxylate cycle	GO:0006097	0.01456960	1.83655235	7	190	3	AT5G03860,AT2G22780,AT3G21720
GO:BP	system development	GO:0048731	0.01804098	1.74373986	2117	190	37	AT5G04870,AT4G29130,AT2G06990,AT4G12570,AT2G22240,AT1G49340,AT2G15890,AT1G32500,AT5G37600,AT4G27410,AT1G74960,AT2G38110,AT5G48300,AT1G24620,AT5G05700,AT3G02470,AT5G13200,AT2G39800,AT1G17840,AT1G01040,AT4G20360,AT2G42600,AT5G64940,AT5G56320,AT1G28440,AT1G48130,AT1G74380,AT4G26270,AT4G02280,AT3G15730,AT1G54570,AT2G21070,AT4G04350,AT5G06720,AT1G12110,AT3G29030,AT5G61380
GO:BP	small molecule biosynthetic process	GO:0044283	0.02076179	1.68273517	686	190	18	AT1G13440,AT1G36370,AT2G22910,AT2G34770,AT2G37040,AT2G22240,AT4G27030,AT5G37600,AT1G74960,AT2G39800,AT2G30490,AT4G21990,AT1G76690,AT1G64970,AT4G26850,AT1G54570,AT4G37870,AT3G11470
GO:BP	carbohydrate biosynthetic process	GO:0016051	0.02257615	1.64635004	331	190	12	AT5G20350,AT1G13440,AT2G35840,AT1G27680,AT5G48300,AT4G32410,AT5G62220,AT1G32900,AT4G26850,AT4G37870,AT3G55800,AT4G02500
GO:BP	response to nutrient levels	GO:0031667	0.02268265	1.64430610	230	190	10	AT5G63190,AT2G22240,AT4G31390,AT4G04955,AT4G33030,AT5G64940,AT5G43350,AT1G54570,AT4G37870,AT4G14680
GO:BP	glyoxylate metabolic process	GO:0046487	0.02316245	1.63521537	8	190	3	AT5G03860,AT2G22780,AT3G21720
GO:BP	cellular response to starvation	GO:0009267	0.02399031	1.61996405	143	190	8	AT2G22240,AT4G31390,AT4G04955,AT4G33030,AT5G43350,AT1G54570,AT4G37870,AT4G14680

GO:BP	photosynthesis	GO:0015979	0.02410275	1.61793335	281	190	11 AT1G55480,AT4G31390,AT4G27800,AT1G60950,AT3G61320,AT1G77090,AT2G42600,AT5G49740,AT5G13630,AT3G55800,AT5G42270
GO:BP	lignin metabolic process	GO:0009808	0.03198179	1.49509717	75	190	6 AT5G05340,AT2G37040,AT5G64120,AT2G30490,AT5G48930,AT5G13420
GO:BP	multicellular organism development	GO:0007275	0.03777869	1.42275304	2715	190	43 AT5G04870,AT4G29130,AT5G02500,AT2G06990,AT4G12570,AT2G37040,AT2G22240,AT1G49340,AT5G23060,AT2G15890,AT1G32500,AT5G37600,AT4G27410,AT1G74960,AT2G38110,AT5G48300,AT1G24620,AT5G05700,AT3G02470,AT5G13200,AT2G39800,AT1G17840,AT2G30490,AT1G01040,AT4G20360,AT2G42600,AT5G64940,AT5G56320,AT1G28440,AT1G48130,AT1G74380,AT4G01370,AT4G26270,AT4G02280,AT3G15730,AT1G54570,AT5G57800,AT2G21070,AT4G04350,AT5G06720,AT1G12110,AT3G29030,AT5G61380
GO:BP	cellular response to nutrient levels	GO:0031669	0.04865378	1.31288335	158	190	8 AT2G22240,AT4G31390,AT4G04955,AT4G33030,AT5G43350,AT1G54570,AT4G37870,AT4G14680
GO:CC	cytoplasm	GO:0005737	3.81986458	17.4179520	9524	204	161 AT5G05340,AT5G54510,AT2G37050,AT1G69220,AT5G63190,AT4G37270,AT5G04870,AT5G20350,AT1G65930,AT4G29130,AT1G13440,AT5G04040,AT3G04090,AT1G36370,AT3G58670,AT1G72030,AT1G50450,AT5G51070,AT5G39040,AT1G55480,AT5G02500,AT5G13930,AT1G56310,AT4G12570,AT3G27020,AT2G22910,AT2G34770,AT5G17170,AT2G20630,AT2G35840,AT1G27350,AT2G37040,AT4G35770,AT2G38240,AT2G22240,AT1G27680,AT1G17500,AT5G30510,AT4G31390,AT1G49340,AT4G27800,AT3G01510,AT5G23060,AT1G12360,AT4G27030,AT2G15890,AT1G07920,AT1G32500,AT5G37600,AT2G47900,AT1G64680,AT1G47640,AT2G19600,AT1G74960,AT1G78570,AT2G26080,AT1G07010,AT5G25400,AT3G22370,AT5G59840,AT1G62780,AT3G43540,AT5G48300,AT1G24620,AT4G04955,AT3G22850,AT4G32410,AT1G60950,AT4G30310,AT5G64260,AT1G69800,AT2G17700,AT5G08650,AT4G01210,AT5G13200,AT3G23660,AT3G61320,AT5G64120,AT2G39800,AT5G62220,AT1G30360,AT2G30490,AT1G31910,AT5G33320,AT2G25490,AT4G33030,AT3G53950,AT2G47600,AT5G03860,AT4G21990,AT3G47550,AT2G36530,AT1G68560,AT5G13030,AT4G00680,AT1G52510,AT1G01040,AT4G18360,AT4G20360,AT1G77090,AT5G03940,AT2G42600,AT5G64940,AT5G48930,AT5G43430,AT5G49740,AT1G32900,AT1G01050,AT1G62330,AT1G05940,AT4G36530,AT5G67480,AT5G13650,AT4G30510,AT2G22780,AT1G48130,AT1G07810,AT5G13630,AT1G74380,AT4G01370,AT2G28800,AT4G26270,AT5G19730,AT4G25130,AT1G76690,AT2G47450,AT3G58140,AT3G17020,AT5G62740,AT3G06610,AT1G54350,AT1G10630,AT2G32810,AT1G64970,AT2G37970,AT3G21720,AT3G24430,AT5G41610,AT3G15730,AT5G22300,AT4G26850,AT1G54570,AT1G44920,AT4G37870,AT1G71790,AT1G75850,AT5G57800,AT3G11470,AT3G55800,AT2G38960,AT4G02500,AT4G04350,AT5G06720,AT5G53450,AT2G23810,AT2G31670,AT4G14680,AT3G07720,AT5G42270,AT2G24270,AT5G13420

GO:CC	plastid	GO:0009536	6.86211643	15.1635419	2856	204	79 AT4G37270,AT1G65930,AT1G13440,AT1G72030,AT1G50450,AT5G51070,AT5G39040,AT1G55480,AT5G02500,AT3G27020,AT2G22910,AT5G17170,AT4G35770,AT1G27680,AT5G30510,AT4G31390,AT4G27800,AT3G01510,AT5G23060,AT4G27030,AT2G15890,AT1G07920,AT1G32500,AT5G37600,AT2G47900,AT1G64680,AT1G74960,AT2G26080,AT1G07010,AT3G22370,AT5G59840,AT1G62780,AT3G43540,AT5G48300,AT1G60950,AT4G30310,AT5G64260,AT5G08650,AT5G13200,AT3G61320,AT2G39800,AT1G30360,AT5G33320,AT4G33030,AT4G21990,AT2G36530,AT5G13030,AT1G52510,AT4G20360,AT1G77090,AT5G03940,AT2G42600,AT5G64940,AT5G43430,AT5G49740,AT1G32900,AT1G05940,AT4G36530,AT5G13650,AT2G22780,AT5G13630,AT2G28800,AT4G25130,AT2G47450,AT3G58140,AT5G62740,AT1G54350,AT1G64970,AT3G24430,AT3G15730,AT1G54570,AT1G44920,AT3G55800,AT4G04350,AT5G53450,AT2G31670,AT4G14680,AT5G42270,AT5G13420
GO:CC	chloroplast	GO:0009507	2.89776394	14.5379369	2351	204	70 AT4G37270,AT1G65930,AT1G13440,AT1G72030,AT1G50450,AT5G51070,AT1G55480,AT5G02500,AT2G22910,AT5G17170,AT4G35770,AT1G27680,AT5G30510,AT4G31390,AT4G27800,AT3G01510,AT5G23060,AT4G27030,AT2G15890,AT1G07920,AT1G32500,AT1G64680,AT1G74960,AT2G26080,AT1G07010,AT3G22370,AT1G62780,AT3G43540,AT5G48300,AT1G60950,AT4G30310,AT5G08650,AT3G61320,AT2G39800,AT1G30360,AT5G33320,AT4G33030,AT4G21990,AT2G36530,AT5G13030,AT1G52510,AT4G20360,AT1G77090,AT5G03940,AT2G42600,AT5G64940,AT5G49740,AT1G32900,AT1G05940,AT4G36530,AT5G13650,AT2G22780,AT5G13630,AT2G28800,AT4G25130,AT2G47450,AT3G58140,AT1G54350,AT1G64970,AT3G24430,AT3G15730,AT1G54570,AT1G44920,AT3G55800,AT4G04350,AT5G53450,AT2G31670,AT4G14680,AT5G42270,AT5G13420
GO:CC	chloroplast stroma	GO:0009570	1.57351562	6.80312893	762	204	29 AT1G65930,AT5G51070,AT1G55480,AT5G30510,AT4G31390,AT4G27800,AT3G01510,AT1G32500,AT1G74960,AT1G62780,AT5G48300,AT3G61320,AT5G13030,AT1G52510,AT4G20360,AT1G77090,AT5G03940,AT5G13650,AT5G13630,AT4G25130,AT2G47450,AT3G58140,AT3G24430,AT1G54570,AT3G55800,AT4G04350,AT2G31670,AT4G14680,AT5G13420
GO:CC	plastid stroma	GO:0009532	1.93940830	6.71233074	769	204	29 AT1G65930,AT5G51070,AT1G55480,AT5G30510,AT4G31390,AT4G27800,AT3G01510,AT1G32500,AT1G74960,AT1G62780,AT5G48300,AT3G61320,AT5G13030,AT1G52510,AT4G20360,AT1G77090,AT5G03940,AT5G13650,AT5G13630,AT4G25130,AT2G47450,AT3G58140,AT3G24430,AT1G54570,AT3G55800,AT4G04350,AT2G31670,AT4G14680,AT5G13420

GO:CC	intracellular anatomical structure	GO:0005622	0.00007860	4.10456465	13505	204	169	AT5G05340,AT5G54510,AT2G37050,AT1G69220,AT1G61700,AT5G63190,AT4G37270,AT5G04870,AT5G20350,AT1G65930,AT4G29130,AT1G13440,AT5G04040,AT3G04090,AT1G36370,AT3G58670,AT1G72030,AT1G50450,AT5G51070,AT5G39040,AT1G55480,AT5G02500,AT5G13930,AT2G06990,AT1G56310,AT4G12570,AT3G27020,AT2G22910,AT2G34770,AT5G17170,AT2G20630,AT2G35840,AT1G27350,AT2G37040,AT4G35770,AT2G38240,AT2G22240,AT1G27680,AT1G17500,AT5G30510,AT4G31390,AT1G49340,AT4G27800,AT3G01510,AT5G23060,AT1G12360,AT4G27030,AT2G15890,AT1G07920,AT1G32500,AT5G37600,AT4G27410,AT2G47900,AT1G64680,AT1G47640,AT2G19600,AT1G74960,AT1G78570,AT2G26080,AT1G07010,AT5G25400,AT3G22370,AT5G59840,AT1G62780,AT3G43540,AT5G48300,AT1G24620,AT4G04955,AT3G22850,AT4G32410,AT1G60950,AT4G30310,AT5G64260,AT1G69800,AT2G17700,AT5G08650,AT4G01210,AT5G13200,AT3G23660,AT3G61320,AT5G64120,AT2G39800,AT5G62220,AT1G30360,AT1G17840,AT2G30490,AT1G31910,AT5G33320,AT2G25490,AT3G52090,AT4G33030,AT3G53950,AT2G47600,AT5G03860,AT4G21990,AT3G47550,AT2G36530,AT1G68560,AT5G13030,AT4G00680,AT1G52510,AT1G01040,AT4G18360,AT4G20360,AT1G77090,AT5G03940,AT2G42600,AT5G64940,AT5G48930,AT5G43430,AT5G49740,AT1G32900,AT1G01050,AT1G62330,AT1G05940,AT4G36530,AT5G67480,AT5G13650,AT4G30510,AT2G22780,AT1G48130,AT1G07810,AT5G13630,AT1G74380,AT4G01370,AT2G28800,AT4G26270,AT5G19730,AT3G10530,AT4G25130,AT1G76690,AT2G47450,AT3G58140,AT3G17020,AT5G62740,AT3G06610,AT1G54350,AT1G10630,AT2G32810,AT1G64970,AT2G37970,AT3G21720,AT3G24430,AT5G41610,AT3G15730,AT5G22300,AT4G26850,AT1G54570,AT1G44920,AT4G37870,AT1G71790,AT1G75850,AT5G57800,AT3G11470,AT2G21070,AT3G55800,AT2G38960,AT4G02500,AT4G04350,AT5G06720,AT5G53450,AT2G23810,AT2G31670,AT4G14680,AT3G07720,AT5G61380,AT5G42270,AT2G24270,AT5G13420
-------	------------------------------------	------------	------------	------------	-------	-----	-----	---

GO:CC	intracellular membrane-bounded organelle	GO:0043231	0.00035691	3.44743663	11808	204	152	AT5G05340,AT2G37050,AT1G69220,AT1G61700,AT5G63190,AT4G37270,AT5G04870,AT5G20350,AT1G65930,AT4G29130,AT1G13440,AT5G04040,AT3G04090,AT1G36370,AT3G58670,AT1G72030,AT1G50450,AT5G51070,AT5G39040,AT1G55480,AT5G02500,AT5G13930,AT2G06990,AT3G27020,AT2G22910,AT2G34770,AT5G17170,AT2G20630,AT2G35840,AT1G27350,AT4G35770,AT1G27680,AT1G17500,AT5G30510,AT4G31390,AT1G49340,AT4G27800,AT3G01510,AT5G23060,AT1G12360,AT4G27030,AT2G15890,AT1G07920,AT1G32500,AT5G37600,AT4G27410,AT2G47900,AT1G664680,AT1G47640,AT2G19600,AT1G74960,AT1G78570,AT2G26080,AT1G07010,AT5G25400,AT3G22370,AT5G59840,AT1G62780,AT3G43540,AT5G48300,AT1G24620,AT4G04955,AT4G32410,AT1G60950,AT4G30310,AT5G64260,AT1G69800,AT5G08650,AT4G01210,AT5G13200,AT3G23660,AT3G61320,AT5G64120,AT2G39800,AT5G62220,AT1G30360,AT1G17840,AT2G30490,AT1G31910,AT5G33320,AT2G25490,AT3G52090,AT4G33030,AT2G47600,AT5G03860,AT4G21990,AT3G47550,AT2G36530,AT1G68560,AT5G13030,AT1G52510,AT1G01040,AT4G18360,AT4G20360,AT1G77090,AT5G03940,AT2G42600,AT5G64940,AT5G43430,AT5G49740,AT1G32900,AT1G01050,AT1G62330,AT1G05940,AT4G36530,AT5G67480,AT5G13650,AT4G30510,AT2G22780,AT1G48130,AT1G07810,AT5G13630,AT1G74380,AT4G01370,AT2G28800,AT3G10530,AT4G25130,AT1G76690,AT2G47450,AT3G58140,AT5G62740,AT1G54350,AT1G10630,AT2G32810,AT1G64970,AT2G37970,AT3G21720,AT3G24430,AT5G41610,AT3G15730,AT4G26850,AT1G54570,AT1G44920,AT4G37870,AT1G75850,AT5G57800,AT3G11470,AT2G21070,AT3G55800,AT2G38960,AT4G02500,AT4G04350,AT5G06720,AT5G53450,AT2G23810,AT2G31670,AT4G14680,AT3G07720,AT5G61380,AT5G42270,AT2G24270,AT5G13420
-------	--	------------	------------	------------	-------	-----	-----	--

GO:CC	membrane-bounded organelle	GO:0043227	0.00039510	3.40328475	11823	204	152	AT5G05340,AT2G37050,AT1G69220,AT1G61700,AT5G63190,AT4G37270,AT5G04870,AT5G20350,AT1G65930,AT4G29130,AT1G13440,AT5G04040,AT3G04090,AT1G36370,AT3G58670,AT1G72030,AT1G50450,AT5G51070,AT5G39040,AT1G55480,AT5G02500,AT5G13930,AT2G06990,AT3G27020,AT2G22910,AT2G34770,AT5G17170,AT2G20630,AT2G35840,AT1G27350,AT4G35770,AT1G27680,AT1G17500,AT5G30510,AT4G31390,AT1G49340,AT4G27800,AT3G01510,AT5G23060,AT1G12360,AT4G27030,AT2G15890,AT1G07920,AT1G32500,AT5G37600,AT4G27410,AT2G47900,AT1G664680,AT1G47640,AT2G19600,AT1G74960,AT1G78570,AT2G26080,AT1G07010,AT5G25400,AT3G22370,AT5G59840,AT1G62780,AT3G43540,AT5G48300,AT1G24620,AT4G04955,AT4G32410,AT1G60950,AT4G30310,AT5G64260,AT1G69800,AT5G08650,AT4G01210,AT5G13200,AT3G23660,AT3G61320,AT5G64120,AT2G39800,AT5G62220,AT1G30360,AT1G17840,AT2G30490,AT1G31910,AT5G33320,AT2G25490,AT3G52090,AT4G33030,AT2G47600,AT5G03860,AT4G21990,AT3G47550,AT2G36530,AT1G68560,AT5G13030,AT1G52510,AT1G01040,AT4G18360,AT4G20360,AT1G77090,AT5G03940,AT2G42600,AT5G64940,AT5G43430,AT5G49740,AT1G32900,AT1G01050,AT1G62330,AT1G05940,AT4G36530,AT5G67480,AT5G13650,AT4G30510,AT2G22780,AT1G48130,AT1G07810,AT5G13630,AT1G74380,AT4G01370,AT2G28800,AT3G10530,AT4G25130,AT1G76690,AT2G47450,AT3G58140,AT5G62740,AT1G54350,AT1G10630,AT2G32810,AT1G64970,AT2G37970,AT3G21720,AT3G24430,AT5G41610,AT3G15730,AT4G26850,AT1G54570,AT1G44920,AT4G37870,AT1G75850,AT5G57800,AT3G11470,AT2G21070,AT3G55800,AT2G38960,AT4G02500,AT4G04350,AT5G06720,AT5G53450,AT2G23810,AT2G31670,AT4G14680,AT3G07720,AT5G61380,AT5G42270,AT2G24270,AT5G13420
-------	----------------------------	------------	------------	------------	-------	-----	-----	--

GO:CC	intracellular organelle	GO:0043229	0.00116531	2.93355501	12312	204	155	AT5G05340,AT2G37050,AT1G69220,AT1G61700,AT5G63190,AT4G37270,AT5G04870,AT5G20350,AT1G65930,AT4G29130,AT1G13440,AT5G04040,AT3G04090,AT1G36370,AT3G58670,AT1G72030,AT1G50450,AT5G51070,AT5G39040,AT1G55480,AT5G02500,AT5G13930,AT2G06990,AT1G56310,AT3G27020,AT2G22910,AT2G34770,AT5G17170,AT2G20630,AT2G35840,AT1G27350,AT4G35770,AT1G27680,AT1G17500,AT5G30510,AT4G31390,AT1G49340,AT4G27800,AT3G01510,AT5G23060,AT1G12360,AT4G27030,AT2G15890,AT1G07920,AT1G32500,AT5G37600,AT4G27410,AT2G47900,AT1G64680,AT1G47640,AT2G19600,AT1G74960,AT1G78570,AT2G26080,AT1G07010,AT5G25400,AT3G22370,AT5G59840,AT1G62780,AT3G43540,AT5G48300,AT1G24620,AT4G04955,AT4G32410,AT1G60950,AT4G30310,AT5G64260,AT1G69800,AT5G08650,AT4G01210,AT5G13200,AT3G23660,AT3G61320,AT5G64120,AT2G39800,AT5G62220,AT1G30360,AT1G17840,AT2G30490,AT1G31910,AT5G33320,AT2G25490,AT3G52090,AT4G33030,AT2G47600,AT5G03860,AT4G21990,AT3G47550,AT2G36530,AT1G68560,AT5G13030,AT4G00680,AT1G52510,AT1G01040,AT4G18360,AT4G20360,AT1G77090,AT5G03940,AT2G42600,AT5G64940,AT5G43430,AT5G49740,AT1G32900,AT1G01050,AT1G62330,AT1G05940,AT4G36530,AT5G67480,AT5G13650,AT4G30510,AT2G22780,AT1G48130,AT1G07810,AT5G13630,AT1G74380,AT4G01370,AT2G28800,AT3G10530,AT4G25130,AT1G76690,AT2G47450,AT3G58140,AT5G62740,AT1G54350,AT1G10630,AT2G32810,AT1G64970,AT2G37970,AT3G21720,AT3G24430,AT5G41610,AT3G15730,AT4G26850,AT1G54570,AT1G44920,AT4G37870,AT1G71790,AT1G75850,AT5G57800,AT3G11470,AT2G21070,AT3G55800,AT2G38960,AT4G02500,AT4G04350,AT5G06720,AT5G53450,AT2G23810,AT2G31670,AT4G14680,AT3G07720,AT5G61380,AT5G42270,AT2G24270,AT5G13420
-------	-------------------------	------------	------------	------------	-------	-----	-----	---

GO:CC	organelle	GO:0043226	0.00127596	2.89416046	12326	204	155	AT5G05340,AT2G37050,AT1G69220,AT1G61700,AT5G63190,AT4G37270,AT5G04870,AT5G20350,AT1G65930,AT4G29130,AT1G13440,AT5G04040,AT3G04090,AT1G36370,AT3G58670,AT1G72030,AT1G50450,AT5G51070,AT5G39040,AT1G55480,AT5G02500,AT5G13930,AT2G06990,AT1G56310,AT3G27020,AT2G22910,AT2G34770,AT5G17170,AT2G20630,AT2G35840,AT1G27350,AT4G35770,AT1G27680,AT1G17500,AT5G30510,AT4G31390,AT1G49340,AT4G27800,AT3G01510,AT5G23060,AT1G12360,AT4G27030,AT2G15890,AT1G07920,AT1G32500,AT5G37600,AT4G27410,AT2G47900,AT1G64680,AT1G47640,AT2G19600,AT1G74960,AT1G78570,AT2G26080,AT1G07010,AT5G25400,AT3G22370,AT5G59840,AT1G62780,AT3G43540,AT5G48300,AT1G24620,AT4G04955,AT4G32410,AT1G60950,AT4G30310,AT5G64260,AT1G69800,AT5G08650,AT4G01210,AT5G13200,AT3G23660,AT3G61320,AT5G64120,AT2G39800,AT5G62220,AT1G30360,AT1G17840,AT2G30490,AT1G31910,AT5G33320,AT2G25490,AT3G52090,AT4G33030,AT2G47600,AT5G03860,AT4G21990,AT3G47550,AT2G36530,AT1G68560,AT5G13030,AT4G00680,AT1G52510,AT1G01040,AT4G18360,AT4G20360,AT1G77090,AT5G03940,AT2G42600,AT5G64940,AT5G43430,AT5G49740,AT1G32900,AT1G01050,AT1G62330,AT1G05940,AT4G36530,AT5G67480,AT5G13650,AT4G30510,AT2G22780,AT1G48130,AT1G07810,AT5G13630,AT1G74380,AT4G01370,AT2G28800,AT3G10530,AT4G25130,AT1G76690,AT2G47450,AT3G58140,AT5G62740,AT1G54350,AT1G10630,AT2G32810,AT1G64970,AT2G37970,AT3G21720,AT3G24430,AT5G41610,AT3G15730,AT4G26850,AT1G54570,AT1G44920,AT4G37870,AT1G71790,AT1G75850,AT5G57800,AT3G11470,AT2G21070,AT3G58800,AT2G38960,AT4G02500,AT4G04350,AT5G06720,AT5G53450,AT2G23810,AT2G31670,AT4G14680,AT3G07720,AT5G61380,AT5G42270,AT2G24270,AT5G13420
GO:CC	chloroplast envelope	GO:0009941	0.00461700	2.33563946	692	204	20	AT4G37270,AT5G51070,AT1G55480,AT5G17170,AT4G27030,AT1G64680,AT2G26080,AT1G30360,AT5G33320,AT1G52510,AT4G20360,AT5G64940,AT5G49740,AT1G05940,AT4G36530,AT5G13630,AT4G25130,AT2G47450,AT3G55800,AT5G42270
GO:CC	membrane	GO:0016020	0.00881320	2.05486600	8169	204	111	AT2G37050,AT1G69220,AT4G37270,AT5G04870,AT5G20350,AT1G65930,AT4G29130,AT1G13440,AT5G04040,AT3G04090,AT4G16600,AT5G39040,AT1G55480,AT5G02500,AT5G13930,AT3G27020,AT2G34770,AT5G17170,AT1G27350,AT3G59340,AT1G17500,AT4G36750,AT3G52950,AT4G31390,AT1G49340,AT4G27800,AT5G23060,AT1G12360,AT4G27030,AT1G07920,AT5G37600,AT3G01930,AT2G47900,AT1G47640,AT2G19600,AT3G58690,AT5G55960,AT5G25400,AT3G22370,AT2G38110,AT5G59840,AT1G64060,AT1G34340,AT3G22850,AT4G32410,AT4G30310,AT1G69800,AT5G08650,AT4G01210,AT3G23660,AT1G02520,AT3G61320,AT5G62220,AT1G30360,AT1G17840,AT2G30490,AT5G33320,AT4G33030,AT3G53950,AT2G47600,AT3G47550,AT2G36530,AT4G27435,AT4G20360,AT1G77090,AT5G03940,AT5G64940,AT5G48930,AT4G11350,AT5G49740,AT5G56320,AT1G28440,AT1G62330,AT1G05940,AT4G17790,AT4G30510,AT4G24040,AT1G07810,AT5G13630,AT1G74380,AT3G54100,AT5G35735,AT2G28800,AT5G22340,AT3G05940,AT3G03341,AT2G47450,AT3G17020,AT3G03800,AT5G62740,AT1G54350,AT5G43350,AT1G10630,AT2G32810,AT2G37970,AT5G41610,AT3G15730,AT5G22300,AT5G63500,AT1G44920,AT5G63930,AT1G75850,AT5G57800,AT3G52940,AT2G38960,AT4G02500,AT5G06720,AT1G12110,AT2G23810,AT3G29030,AT5G42270

GO:CC	plastid envelope	GO:0009526	0.01175215	1.92988260	988	204	24	AT4G37270,AT5G51070,AT1G55480,AT3G27020,AT5G17170,AT5G23060,AT4G27030,AT1G64680,AT2G26080,AT3G61320,AT1G30360,AT5G33320,AT1G52510,AT4G20360,AT5G64940,AT5G49740,AT1G05940,AT4G36530,AT5G13630,AT2G28800,AT4G25130,AT2G47450,AT3G55800,AT5G42270
GO:CC	cellular anatomical structure	GO:0110165	0.01301609	1.88551926	18497	204	201	AT5G05340,AT5G54510,AT2G37050,AT1G69220,AT1G61700,AT5G63190,AT4G37270,AT5G04870,AT5G20350,AT1G65930,AT4G29130,AT1G13440,AT5G04040,AT3G04090,AT1G36370,AT3G58670,AT1G72030,AT1G50450,AT4G16600,AT5G51070,AT5G39040,AT1G55480,AT5G02500,AT5G13930,AT2G06990,AT1G56310,AT4G12570,AT3G27020,AT2G22910,AT2G34770,AT5G17170,AT2G20630,AT2G35840,AT1G27350,AT3G59340,AT2G37040,AT4G35770,AT2G38240,AT2G22240,AT1G27680,AT1G17500,AT5G30510,AT4G36750,AT3G52950,AT4G31390,AT1G49340,AT4G27800,AT3G01510,AT5G23060,AT1G12360,AT4G27030,AT2G15890,AT1G07920,AT1G32500,AT5G37600,AT4G27410,AT3G01930,AT2G47900,AT1G64680,AT1G47640,AT2G19600,AT1G74960,AT1G78570,AT2G26080,AT3G58690,AT1G07010,AT5G55960,AT5G25400,AT3G22370,AT2G38110,AT5G59840,AT1G62780,AT3G43540,AT5G48300,AT1G24620,AT4G04955,AT1G64060,AT1G34340,AT3G22850,AT4G32410,AT1G60950,AT4G30310,AT5G64260,AT1G69800,AT2G41480,AT4G38030,AT2G17700,AT5G08650,AT4G01210,AT5G13200,AT3G23660,AT1G02520,AT3G61320,AT5G64120,AT2G39800,AT5G62220,AT1G30360,AT1G17840,AT2G30490,AT1G31910,AT5G33320,AT2G25490,AT3G52090,AT4G33030,AT3G53950,AT2G47600,AT5G03860,AT4G21990,AT3G47550,AT2G36530,AT1G68560,AT5G13030,AT4G27435,AT4G00680,AT1G52510,AT1G01040,AT4G18360,AT4G20360,AT1G77090,AT5G03940,AT2G42600,AT5G64940,AT5G48930,AT5G43430,AT4G11350,AT5G49740,AT5G56320,AT1G32900,AT1G01050,AT1G28440,AT1G62330,AT1G05940,AT4G36530,AT5G67480,AT5G13650,AT4G17790,AT4G30510,AT4G24040,AT2G22780,AT1G48130,AT1G07810,AT5G13630,AT1G74380,AT3G54100,AT4G01370,AT5G35735,AT2G28800,AT5G22340,AT3G05940,AT4G26270,AT5G19730,AT3G10530,AT4G25130,AT3G03341,AT1G76690,AT2G47450,AT3G58140,AT3G17020,AT3G03800,AT5G62740,AT3G06610,AT1G54350,AT5G43350,AT1G10630,AT2G32810,AT1G64970,AT2G37970,AT3G21720,AT3G24430,AT5G41610,AT3G15730,AT5G22300,AT4G26850,AT1G54570,AT5G63500,AT1G44920,AT5G63930,AT4G37870,AT1G71790,AT1G75850,AT5G57800,AT3G11470,AT2G21070,AT3G52940,AT3G55800,AT2G38960,AT4G02500,AT4G04350,AT1G57590,AT5G06720,AT1G12110,AT5G53450,AT2G23810,AT2G31670,AT4G14680,AT3G07720,AT3G29030,AT5G61380,AT5G42270,AT2G24270,AT5G13420
GO:CC	vacuole	GO:0005773	0.02164995	1.66454309	1094	204	25	AT5G05340,AT4G29130,AT5G39040,AT5G02500,AT5G13930,AT3G27020,AT1G12360,AT1G07920,AT2G26080,AT5G64120,AT1G30360,AT2G30490,AT2G47600,AT1G05940,AT5G67480,AT4G30510,AT1G07810,AT5G62740,AT1G10630,AT2G32810,AT2G37970,AT3G15730,AT5G06720,AT2G23810,AT2G24270
GO:CC	peroxisome	GO:0005777	0.04245246	1.37209705	350	204	12	AT5G04870,AT1G13440,AT5G04040,AT1G07010,AT2G30490,AT1G31910,AT5G03860,AT4G18360,AT2G22780,AT2G28800,AT3G21720,AT2G31670
GO:CC	microbody	GO:0042579	0.04245246	1.37209705	350	204	12	AT5G04870,AT1G13440,AT5G04040,AT1G07010,AT2G30490,AT1G31910,AT5G03860,AT4G18360,AT2G22780,AT2G28800,AT3G21720,AT2G31670

KEGG	Biosynthesis of secondary metabolites	KEGG:01110	0.00001870	4.72806090	1283	89	43 AT5G05340,AT1G65930,AT4G29130,AT1G13440,AT5G04040,AT1G36370,AT5G13930,AT2G22910,AT2G35840,AT2G37040,AT2G22240,AT1G27680,AT4G36750,AT2G26080,AT2G38110,AT5G48300,AT2G41480,AT5G64120,AT2G39800,AT2G30490,AT1G31910,AT5G03860,AT2G36530,AT4G18360,AT5G48930,AT1G32900,AT4G24040,AT2G22780,AT1G48130,AT5G13630,AT4G26270,AT4G02280,AT1G76690,AT1G64970,AT3G21720,AT3G15730,AT5G22300,AT4G26850,AT4G37870,AT3G52940,AT5G06720,AT4G14680,AT5G13420
KEGG	Carbon metabolism	KEGG:01200	0.00028914	3.53888854	271	89	16 AT1G65930,AT4G29130,AT1G13440,AT1G36370,AT2G26080,AT5G03860,AT2G36530,AT4G18360,AT2G42600,AT2G22780,AT4G26270,AT3G21720,AT4G37870,AT3G55800,AT2G24270,AT5G13420
KEGG	Metabolic pathways	KEGG:01100	0.00149602	2.82506249	2337	89	58 AT5G05340,AT1G65930,AT4G29130,AT1G13440,AT5G04040,AT1G36370,AT5G13930,AT2G22910,AT2G37040,AT2G22240,AT1G27680,AT4G36750,AT1G49340,AT5G37600,AT1G74960,AT1G78570,AT2G26080,AT2G38110,AT5G48300,AT4G04955,AT1G60950,AT4G30310,AT2G41480,AT3G02470,AT5G64120,AT2G39800,AT2G30490,AT1G31910,AT4G33030,AT5G03860,AT4G21990,AT2G36530,AT4G18360,AT2G42600,AT3G29090,AT5G48930,AT1G32900,AT4G24040,AT2G22780,AT1G48130,AT5G13630,AT4G26270,AT5G19730,AT4G02280,AT1G76690,AT1G64970,AT3G21720,AT3G15730,AT5G22300,AT4G26850,AT4G37870,AT3G11470,AT3G52940,AT3G55800,AT5G06720,AT4G14680,AT2G24270,AT5G13420
KEGG	Glyoxylate and dicarboxylate metabolism	KEGG:00630	0.00942303	2.02580912	77	89	7 AT1G36370,AT5G37600,AT2G26080,AT5G03860,AT4G18360,AT2G22780,AT3G21720
KEGG	Phenylpropanoid biosynthesis	KEGG:00940	0.04360348	1.36047884	128	89	8 AT5G05340,AT2G37040,AT2G41480,AT5G64120,AT2G30490,AT5G48930,AT1G48130,AT5G06720
WP	Glycolysis	WP:WP2621	0.03151642	1.50146311	37	14	4 AT1G13440,AT2G36530,AT2G42600,AT4G26270

**Supplementary Table 7 Gene ontology and KEGG pathways annotation of Riccia fluitans transcripts with changes in polyA tails length engaged in response to high- and low-dose of micro-/nanoplastic (MNP) pollution**

source	term_name	term_id	adjusted_p_value	negative_log10_of_adjusted_p_value	term_size	query_size	intersection_size	intersections
GO:MF	chlorophyll binding	GO:0016168	0.00007774569862959006	4.109323629479376	34	40	4	AT2G05070,AT1G61520,AT2G05100,AT3G27690
GO:MF	protein domain specific binding	GO:0019904	0.005365757477417515	2.2703689605495723	97	40	4	AT3G16640,AT1G61520,AT2G05100,AT1G32060
GO:MF	(S)-2-hydroxy-acid oxidase activity	GO:0003973	0.006458120637776109	2.189893846616608	5	40	2	AT4G18360,AT3G14415
GO:MF	oxygen binding	GO:0019825	0.006458120637776109	2.189893846616608	5	40	2	AT2G16060,AT5G42650 AT2G16060,AT2G05070,AT1G61520,AT5G42650,AT2G05100,
GO:MF	tetrapyrrole binding	GO:0046906	0.017699059597197773	1.7520498083612237	418	40	6	AT3G27690
GO:MF	ribulose-bisphosphate carboxylase activity	GO:0016984	0.023146467521196843	1.6355152790784748	9	40	2	AT2G39730,AT1G67090
GO:BP	photosynthesis, light harvesting in photosystem I	GO:0009768	2.3895026516081223e-9	8.621692483210508	10	41	5	AT2G05070,AT1G61520,AT2G05100,AT3G27690,AT1G08380
GO:BP	photosynthesis	GO:0015979	4.327751807370932e-8	7.363737653580781	281	41	10	AT2G05070,AT1G60950,AT1G61520,AT1G67090,AT4G04640, AT2G05100,AT3G27690,AT1G08380,AT1G79040,AT1G32060 AT2G05070,AT1G60950,AT1G61520,AT4G04640,AT2G05100,
GO:BP	photosynthesis, light reaction reactive oxygen species	GO:0019684	1.3596216207657801e-7	6.866581937863166	146	41	8	AT3G27690,AT1G08380,AT1G79040
GO:BP	biosynthetic process	GO:1903409	9.092136787958902e-7	6.041334039092154	28	41	5	AT4G18360,AT2G05070,AT2G05100,AT3G27690,AT3G14415
GO:BP	photosynthesis, light harvesting	GO:0009765	0.000003983195639511669	5.399768362163671	37	41	5	AT2G05070,AT1G61520,AT2G05100,AT3G27690,AT1G08380
GO:BP	regulation of stomatal closure photosynthesis, light harvesting in	GO:0090333	0.0000059881764000357436	5.2227054146693765	40	41	5	AT2G05070,AT3G16640,AT5G23060,AT2G05100,AT3G27690
GO:BP	photosystem II response to low light intensity	GO:0009769	0.00001303560358409945	4.884868855007741	4	41	3	AT2G05070,AT2G05100,AT3G27690
GO:BP	stimulus	GO:0009645	0.00002148434295293174	4.667877923631437	19	41	4	AT2G05070,AT1G61520,AT2G05100,AT3G27690
GO:BP	stomatal closure generation of precursor metabolites and energy	GO:0090332	0.00003722769439459789	4.429133859905965	57	41	5	AT2G05070,AT3G16640,AT5G23060,AT2G05100,AT3G27690 AT2G05070,AT1G60950,AT1G61520,AT1G76100,AT4G04640,
GO:BP	positive regulation of reactive oxygen species biosynthetic process	GO:0006091	0.00007845768302330205	4.105364521404705	462	41	9	AT2G05100,AT3G27690,AT1G08380,AT1G79040
GO:BP	positive regulation of reactive oxygen species metabolic process	GO:1903428	0.00011361729229759553	3.9445555649463255	7	41	3	AT2G05070,AT2G05100,AT3G27690
GO:BP	regulation of stomatal movement	GO:0010119	0.0009242179132063851	3.03422561823314	108	41	5	AT2G05070,AT3G16640,AT5G23060,AT2G05100,AT3G27690
GO:BP	response to desiccation	GO:0009269	0.0021789032647326462	2.6617620503987114	17	41	3	AT2G05070,AT2G05100,AT3G27690
GO:BP	regulation of reactive oxygen species biosynthetic process	GO:1903426	0.0021789032647326462	2.6617620503987114	17	41	3	AT2G05070,AT2G05100,AT3G27690
GO:BP	response to high light intensity	GO:0009644	0.0033142126840254916	2.479619624904361	64	41	4	AT2G05070,AT1G61520,AT2G05100,AT3G27690
GO:BP	response to light intensity	GO:0009642	0.005262664723092436	2.278794297387061	154	41	5	AT2G05070,AT1G60950,AT1G61520,AT2G05100,AT3G27690

GO:BP	response to cold	GO:0009409	0.0053051494394387305	2.2753023780567925	410	41	AT2G05070,AT2G39730,AT1G61520,AT1G67090,AT2G05100, 7 AT3G27690,AT1G32060
GO:BP	response to stress	GO:0006950	0.00668896213426236	2.1746412625505	3733	41	AT4G18360,AT2G16060,AT2G05070,AT3G16640,AT4G14680, AT5G18610,AT2G39730,AT1G61520,AT5G40370,AT1G67090, AT2G30870,AT5G42650,AT2G05100,AT3G27690,AT1G80030, 19 AT3G14415,AT5G13930,AT1G27350,AT1G32060
GO:BP	stomatal movement	GO:0010118	0.006727279365664212	2.1721605368709103	162	41	5 AT2G05070,AT3G16640,AT5G23060,AT2G05100,AT3G27690 AT2G16060,AT2G05070,AT1G60950,AT3G16640,AT2G39730, AT1G61520,AT1G67090,AT5G23060,AT2G30870,AT2G05100, 14 AT3G27690,AT1G80030,AT5G13930,AT1G32060
GO:BP	response to abiotic stimulus	GO:0009628	0.009689507312456214	2.0136983051908692	2131	41	AT2G05070,AT2G39730,AT1G61520,AT1G67090,AT2G05100, 8 AT3G27690,AT1G80030,AT1G32060
GO:BP	response to temperature stimulus	GO:0009266	0.01156662077791716	1.9367935029204508	644	41	8 AT3G27690,AT1G80030,AT1G32060
GO:BP	reactive oxygen species metabolic process	GO:0072593	0.0134354873864911	1.87174657445416	187	41	5 AT4G18360,AT2G05070,AT2G05100,AT3G27690,AT3G14415
GO:BP	cellular response to water deprivation	GO:0042631	0.02845860947171233	1.545786323981731	39	41	3 AT2G05070,AT2G05100,AT3G27690
GO:BP	cellular response to water stimulus	GO:0071462	0.030726139845115227	1.5124919971555315	40	41	3 AT2G05070,AT2G05100,AT3G27690
GO:BP	response to light stimulus	GO:0009416	0.0388109156075053	1.411046111483211	764	41	AT2G05070,AT1G60950,AT2G39730,AT1G61520,AT5G23060, 8 AT2G05100,AT3G27690,AT5G13930
GO:BP	response to far red light	GO:0010218	0.04097460362278145	1.3874852389843433	44	41	3 AT2G05070,AT2G05100,AT3G27690
GO:BP	response to radiation	GO:0009314	0.04525909391683874	1.3442941448323737	781	41	AT2G05070,AT1G60950,AT2G39730,AT1G61520,AT5G23060, 8 AT2G05100,AT3G27690,AT5G13930
GO:BP							AT4G01150,AT2G05070,AT3G16640,AT2G05990,AT2G39730, AT1G61520,AT1G76100,AT1G67090,AT4G04640,AT5G23060, AT5G42650,AT2G05100,AT3G27690,AT1G08380,AT2G26900, 18 AT1G79040,AT1G80030,AT1G32060
GO:CC	thylakoid	GO:0009579	1.5350583512028492e-15	14.813875111311383	596	40	AT4G01150,AT2G05070,AT2G39730,AT1G61520,AT1G76100, AT1G67090,AT4G04640,AT5G23060,AT5G42650,AT2G05100, AT3G27690,AT1G08380,AT2G26900,AT1G79040,AT1G80030, 16 AT1G32060
GO:CC	chloroplast thylakoid	GO:0009534	1.0502390698993042e-13	12.978711829577755	517	40	AT4G01150,AT2G05070,AT2G39730,AT1G61520,AT1G76100, AT1G67090,AT4G04640,AT5G23060,AT5G42650,AT2G05100, AT3G27690,AT1G08380,AT2G26900,AT1G79040,AT1G80030, 16 AT1G32060
GO:CC	plastid thylakoid	GO:0031976	1.1156064346507708e-13	12.95248898945326	519	40	AT4G01150,AT2G05070,AT2G39730,AT1G61520,AT1G76100, AT1G67090,AT4G04640,AT5G23060,AT5G42650,AT2G05100, 15 AT3G27690,AT1G08380,AT1G79040,AT1G80030,AT1G32060
GO:CC	chloroplast thylakoid membrane	GO:0009535	1.4286594943998935e-13	12.845071268287091	424	40	AT4G01150,AT2G05070,AT2G39730,AT1G61520,AT1G76100, AT1G67090,AT4G04640,AT5G23060,AT5G42650,AT2G05100, 15 AT3G27690,AT1G08380,AT1G79040,AT1G80030,AT1G32060
GO:CC	plastid thylakoid membrane	GO:0055035	1.5313198166136742e-13	12.81493409729296	426	40	AT4G01150,AT2G05070,AT2G39730,AT1G61520,AT1G76100, AT1G67090,AT4G04640,AT5G23060,AT5G42650,AT2G05100, 15 AT3G27690,AT1G08380,AT1G79040,AT1G80030,AT1G32060

GO:CC	thylakoid membrane	GO:0042651	2.635911336768274e-13	12.5790692020446	442	40	AT4G01150,AT2G05070,AT2G39730,AT1G61520,AT1G76100,AT1G67090,AT4G04640,AT5G23060,AT5G42650,AT2G05100,15 AT3G27690,AT1G08380,AT1G79040,AT1G80030,AT1G32060
GO:CC	photosynthetic membrane	GO:0034357	2.725037778748491e-13	12.56462747247421	443	40	AT4G01150,AT2G05070,AT2G39730,AT1G61520,AT1G76100,AT1G67090,AT4G04640,AT5G23060,AT5G42650,AT2G05100,15 AT3G27690,AT1G08380,AT1G79040,AT1G80030,AT1G32060
GO:CC	outer membrane	GO:0019867	5.801239334732453e-12	11.236479216999305	546	40	AT4G01150,AT2G05070,AT2G39730,AT1G61520,AT1G76100,AT1G67090,AT4G04640,AT5G23060,AT5G42650,AT2G05100,15 AT3G27690,AT1G08380,AT1G79040,AT1G80030,AT1G32060
GO:CC	organelle outer membrane	GO:0031968	5.801239334732453e-12	11.236479216999305	546	40	AT4G01150,AT2G05070,AT2G39730,AT1G61520,AT1G76100,AT1G67090,AT4G04640,AT5G23060,AT5G42650,AT2G05100,15 AT3G27690,AT1G08380,AT1G79040,AT1G80030,AT1G32060 AT5G36790,AT4G01150,AT2G05070,AT1G60950,AT3G16640,AT3G02630,AT4G14680,AT2G05990,AT2G39730,AT5G13560,AT1G61520,AT1G76100,AT5G40370,AT1G67090,AT4G04640,AT5G23060,AT2G30870,AT5G42650,AT2G05100,AT3G27690,AT1G08380,AT2G26900,AT1G79040,AT1G80030,AT3G14415,26 AT1G32060
GO:CC	plastid	GO:0009536	2.6399419905742176e-11	10.57840561610377	2856	40	AT5G36790,AT4G01150,AT2G05070,AT1G60950,AT3G16640,AT3G02630,AT4G14680,AT2G05990,AT2G39730,AT1G61520,AT1G76100,AT1G67090,AT4G04640,AT5G23060,AT2G30870,AT5G42650,AT2G05100,AT3G27690,AT1G08380,AT2G26900,24 AT1G79040,AT1G80030,AT3G14415,AT1G32060
GO:CC	chloroplast	GO:0009507	3.827901345939793e-11	10.417039263545682	2351	40	AT4G01150,AT2G05070,AT2G39730,AT1G61520,AT1G76100,AT1G67090,AT4G04640,AT5G23060,AT5G42650,AT2G05100,15 AT3G27690,AT1G08380,AT1G79040,AT1G80030,AT1G32060 AT4G01150,AT2G05070,AT2G05990,AT2G39730,AT1G61520,AT1G76100,AT1G67090,AT4G04640,AT5G23060,AT5G42650,AT2G05100,AT3G27690,AT1G08380,AT2G26900,AT1G79040,17 AT1G80030,AT1G32060
GO:CC	plastid membrane	GO:0042170	1.215733487098936e-10	9.915161620596319	674	40	AT4G01150,AT2G05070,AT2G39730,AT1G61520,AT1G76100,AT1G67090,AT4G04640,AT5G23060,AT5G42650,AT2G05100,15 AT3G27690,AT1G08380,AT1G79040,AT1G80030,AT1G32060 AT4G01150,AT2G05070,AT2G05990,AT2G39730,AT1G61520,AT1G76100,AT1G67090,AT4G04640,AT5G23060,AT5G42650,AT2G05100,AT3G27690,AT1G08380,AT2G26900,AT1G79040,17 AT1G80030,AT1G32060
GO:CC	plastid envelope	GO:0009526	1.5377264841008397e-10	9.813120905763055	988	40	AT4G01150,AT2G05070,AT2G39730,AT1G61520,AT1G76100,AT1G67090,AT4G04640,AT5G23060,AT5G42650,AT2G05100,15 AT3G27690,AT1G08380,AT5G57190,AT1G79040,AT1G80030,17 AT5G13930,AT1G32060
GO:CC	bounding membrane of organelle	GO:0098588	3.998152004766825e-8	7.398140698567943	1406	40	AT4G01150,AT2G05070,AT2G05990,AT2G39730,AT1G61520,AT1G76100,AT1G67090,AT4G04640,AT5G23060,AT5G42650,AT2G05100,AT3G27690,AT1G08380,AT2G26900,AT1G79040,17 AT1G80030,AT1G32060
GO:CC	organelle envelope	GO:0031967	6.573049829455088e-8	7.1822330753759	1452	40	AT4G01150,AT2G05070,AT2G39730,AT1G61520,AT1G76100,AT1G67090,AT4G04640,AT5G23060,AT5G42650,AT2G05100,AT3G27690,AT1G08380,AT2G26900,AT1G79040,17 AT1G80030,AT1G32060

GO:CC	intracellular membraneless organelle	GO:0043232	1.8566385974735303e-7	6.731272625284446	2568	40	21 AT4G01150,AT2G05070,AT3G16640,AT2G05990,AT2G39730,AT5G59240,AT1G61520,AT1G76100,AT1G67090,AT4G04640,AT5G23060,AT3G14360,AT5G42650,AT2G05100,AT3G27690,AT1G08380,AT2G26900,AT1G79040,AT1G80030,AT3G06680,AT1G32060
GO:CC	membraneless organelle	GO:0043228	1.8566385974735303e-7	6.731272625284446	2568	40	21 AT4G01150,AT2G05070,AT2G05990,AT2G39730,AT1G67090,AT4G04640,AT5G23060,AT3G14360,AT5G42650,AT2G05100,AT3G27690,AT1G08380,AT2G26900,AT1G79040,AT1G80030,AT3G06680,AT1G32060
GO:CC	chloroplast envelope	GO:0009941	5.794245459079478e-7	6.237003110915867	692	40	12 AT4G01150,AT2G05070,AT2G05990,AT2G39730,AT1G67090,AT4G04640,AT5G42650,AT2G05100,AT3G27690,AT2G26900,AT1G80030,AT1G32060
GO:CC	photosystem I	GO:0009522	0.0000021380662571433538	5.66997884044348	43	40	5 AT2G05070,AT1G61520,AT2G05100,AT3G27690,AT1G08380
GO:CC	photosystem	GO:0009521	0.0000035512847645882296	5.449614501809681	97	40	6 AT2G05070,AT1G61520,AT2G05100,AT3G27690,AT1G08380,AT1G79040
GO:CC	plastoglobule	GO:0010287	0.00001398039453019537	4.854480572519585	62	40	5 AT4G01150,AT2G05070,AT2G39730,AT1G61520,AT5G42650
GO:CC	PSII associated light-harvesting complex II	GO:0009517	0.000014077268177331491	4.851481615834561	6	40	3 AT2G05070,AT2G05100,AT3G27690
GO:CC	chloroplast stroma	GO:0009570	0.000018146902987831293	4.741197482476969	762	40	11 AT4G01150,AT2G05070,AT3G02630,AT4G14680,AT2G05990,AT2G39730,AT1G61520,AT1G67090,AT5G42650,AT3G14415,AT1G32060
GO:CC	plastid stroma	GO:0009532	0.00001988948751487407	4.70137640703794	769	40	11 AT4G01150,AT2G05070,AT3G02630,AT4G14680,AT2G05990,AT2G39730,AT1G61520,AT1G67090,AT5G42650,AT3G14415,AT1G32060
GO:CC	light-harvesting complex	GO:0030076	0.000039307208313778135	4.405527799654205	8	40	3 AT2G05070,AT2G05100,AT3G27690
GO:CC	thylakoid light-harvesting complex	GO:0009503	0.000039307208313778135	4.405527799654205	8	40	3 AT2G05070,AT2G05100,AT3G27690
GO:CC	photosystem II	GO:0009523	0.00004455838322475654	4.3510705756733135	78	40	5 AT2G05070,AT1G61520,AT2G05100,AT3G27690,AT1G79040
GO:CC	cytoplasm	GO:0005737	0.0000930183968927115	4.03143114952294	9524	40	34 AT5G36790,AT4G01150,AT4G18360,AT2G16060,AT2G05070,AT1G60950,AT3G16640,AT3G02630,AT1G14400,AT4G14680,AT2G05990,AT2G39730,AT5G59240,AT5G13560,AT1G61520,AT1G76100,AT5G40370,AT1G67090,AT4G04640,AT5G23060,AT2G30870,AT5G42650,AT2G05100,AT3G27690,AT1G08380,AT2G26900,AT5G57190,AT1G79040,AT1G80030,AT3G14415,AT3G06680,AT5G13930,AT1G27350,AT1G32060
GO:CC	organelle membrane	GO:0031090	0.00012297757939318566	3.910174059563678	2413	40	17 AT4G01150,AT2G05070,AT2G39730,AT1G61520,AT1G76100,AT1G67090,AT4G04640,AT5G23060,AT5G42650,AT2G05100,AT3G27690,AT1G08380,AT5G57190,AT1G79040,AT1G80030,AT5G13930,AT1G32060
GO:CC	chloroplast thylakoid membrane protein complex	GO:0098807	0.00047138493030479515	3.3266243055411895	17	40	3 AT2G05070,AT2G05100,AT3G27690