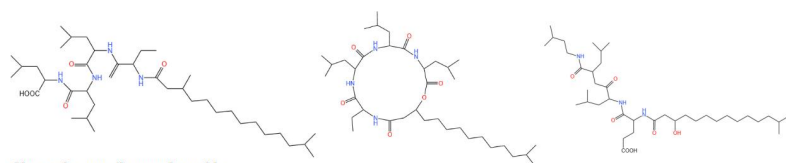
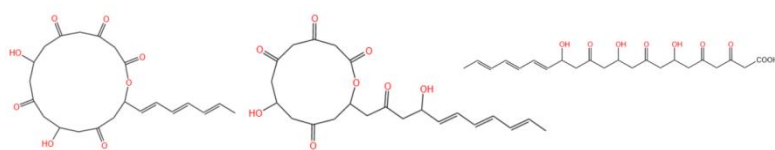


Whole genome sequencing provides evidence for *Bacillus velezensis* SH-1471 as a beneficial rhizosphere bacterium in plants

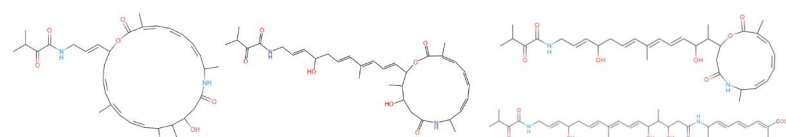
Yunxin Shen^{1,2#} Zhufeng Shi^{1#} Jiangyuan Zhao³ Minggang Li³ Nan Wang^{1,2} Yanfang Mo^{1,2} Tongyu Yang^{1,2} Jiakai Tang¹ Xudong Zhou¹ Qibin Chen² Peiweng Yang¹



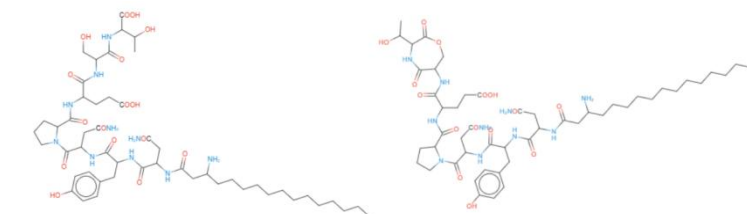
Cluster 2: nonribosomal peptide



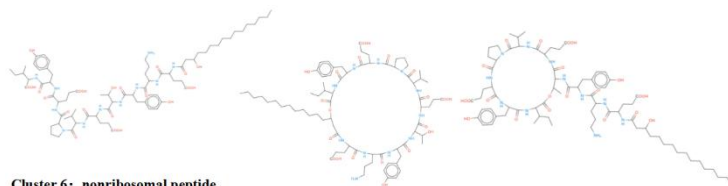
Cluster 3: polyketide



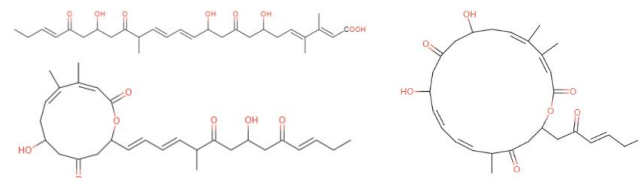
Cluster 4: polyketide, nonribosomal peptide



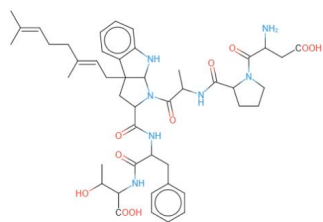
Cluster 5: polyketide, nonribosomal peptide



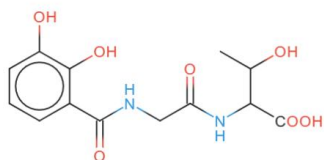
Cluster 6: nonribosomal peptide



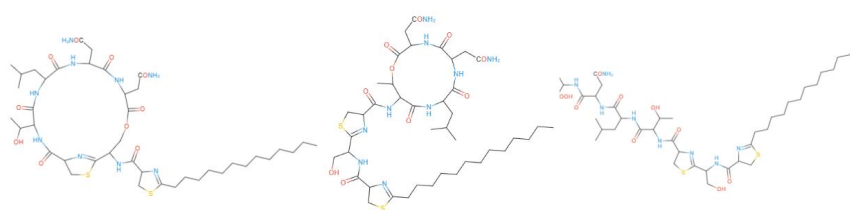
Cluster 7: polyketide



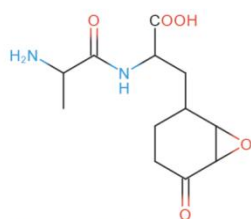
Cluster 8: ComX



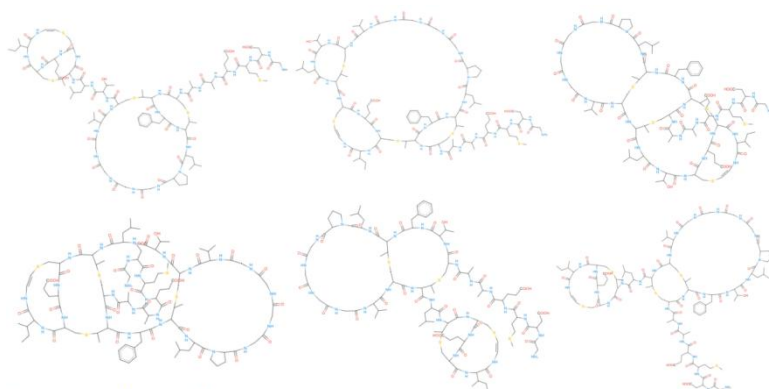
Cluster 9: nonribosomal peptide



Cluster 11: nonribosomal peptide



Cluster 12: Bacilysin



Cluster 13: class II lantipeptide

Fig S1 Predicted structures of secondary metabolites by SH-1471 using PRISM

Table S1. Representative genes of *Bacillus velezensis* SH-1471 probably involved in plant bacterium interactions.

Gene	Position	Protein	Description
<i>spo0A</i>	2528768-2529568	Sporulation	Biofilm formation
<i>sigH</i>	117209-117865	RNA polymerase sigma-H factor	Biofilm formation
<i>SigX</i>	2356109-2356693	ECF RNA polymerase sigma factor	Biofilm formation

<i>sinR</i>	2562907-2563242	HTH-type transcriptional regulator	Biofilm formation
<i>sinI</i>	2562700-2562873	SinR antagonist	Biofilm formation
<i>Abh</i>	1441686-1441970	Putative transition state regulator	Biofilm formation
<i>abrB</i>	45545-45829	Transition state regulatory protein	Biofilm formation
<i>sigW</i>	200179-200742	ECF RNA polymerase sigma factor	Biofilm formation
<i>MalK</i>	3200010-3201611	Sensor histidine kinase	Biofilm formation
<i>CssS</i>	3350315-3351670	Sensor histidine kinase	Biofilm formation
<i>resE</i>	2356885-2358666	Sensor histidine kinase	Biofilm formation
<i>lytS</i>	2950687-2952468	Sensor histidine kinase	Biofilm formation
<i>YrkQ</i>	2664673-2665923	Sensor histidine kinase	Biofilm formation
<i>glnK</i>	256177-257469	Sensor histidine kinase	Biofilm formation
<i>yfnF</i>	743150-744061	polysaccharide biosynthesis protein	Necessary for biofilm formation
<i>CapD</i>	2145782-2146807	polysaccharide biosynthesis protein	Necessary for biofilm formation
<i>tasA</i>	2563290-2564075	Major biofilm matrix component	Necessary for biofilm formation
<i>tapA</i>	2564696-2565349	TasA anchoring/assembly protein	Essential for biofilm formation
<i>sacT</i>	3882947-3883777	Levan sucrase	Root adhesion
<i>sacB</i>	4136151-4137572	Levan sucrase	Root adhesion
<i>efp</i>	2548824-2549381	Elongation factor P	Essential for swarming motility
<i>NusA</i>	1704961-1706082	Transcription termination/antitermination protein	Essential for swarming motility
<i>swrB</i>	1690108-1690575	Swarming motility protein	Essential for swarming motility
<i>SwrAA</i>	3606223-3606558	Swarming motility protein	Essential for swarming motility
<i>yhbJ</i>	924386-925018	Multidrug efflux pump	Self-resistance against surfactin
<i>EbrB</i>	1838176-1838529	Multidrug efflux pump	Self-resistance against surfactin
<i>swrC</i>	703582-706725	Multidrug efflux pump	Self-resistance against surfactin
<i>comP</i>	3214904-3216190	Sensor histidine kinase	Regulator of surfactin production
<i>srfAC</i>	351132-354968	Surfactin synthase subunit 1	Necessary for surface motility and biofilm formation
<i>srfAA</i>	340328-351097	Surfactin synthase subunit 1	Necessary for surface motility and biofilm formation
<i>srfAD</i>	354988-355719	Surfactin synthase subunit 1	Necessary for surface motility and biofilm formation
<i>yczE</i>	357960-358589	Integral membrane spanning protein	Necessary for surface motility and biofilm formation
<i>ffp</i>	357187-357861	Phosphopantetheinyl transfease	Necessary for surface motility and biofilm formation
<i>RemA</i>	1614475-1614744	extracellular matrix/biofilm regulator	Protein secretion to extracellular matrix
<i>remB</i>	4158-4403	Extracellular matrix regulatory protein B	Protein secretion to extracellular matrix
<i>BmrA</i>	3535740-3537509	ABC multidrug transport	Protein secretion to extracellular matrix
<i>ecsA</i>	1021894-1022637	ABC multidrug transport	Protein secretion to extracellular matrix
<i>ylbF</i>	1542475-1542924	Positive regulator of ComK	Control of community development
<i>ymcA</i>	1750655-1751086	Hypothetical protein	Control of community development
<i>tufA</i>	133464-134654	Elongation factor EF-Tu	Elicitation of plant basal defence
<i>fliD</i>	3618934-3620454	Flagellin HAP2	Elicitation of plant basal defence
<i>hag</i>	3620705-3621706	Flagellin HAG	Elicitation of plant basal defence
<i>flgK</i>	3624118-3625635	Flagellin HAP1	Elicitation of plant basal defence
<i>tuaA</i>	3644023-3644682	Teichuronic acid biosynthesis	Elicitation of plant basal defence
<i>phyC</i>	2144314-2145465	Phytase	Phosphate availability
<i>FecCD</i>	187563-188570	Ferrichrome ABC transporter	Transport/binding proteins and lipoproteins

<i>fhuG</i>	3933736-3934749	Ferrichrome ABC transporter	Transport/binding proteins and lipoproteins
<i>yclQ</i>	390277-391221	Ferrichrome ABC transporter	Transport/binding proteins and lipoproteins
<i>xynA</i>	3746199-3746840	Endo-1,4-beta-xylanase A	Extracellular degradation of plant cell walls
<i>xynD</i>	1936642-1938177	Arabinoxylan arabinofuranohydrolase	Extracellular degradation of plant cell walls
<i>YfeH</i>	184830-185813	Hypothetical symporter	Transport of oligosaccharides
<i>xynB</i>	1859557-1860684	Xylan beta-1,4-xylosidase	Carbohydrate metabolism
<i>XynC</i>	1935319-1936590	Glucuronoxylanase	Glucan degradation
<i>bglC</i>	1930755-1932260	Endo-beta-1,3-1,4 glucanase	Glucan degradation
<i>GalE</i>	3962136-3963152	lactose metabolism repressor protein	Lactose metabolism
<i>lacR</i>	1249158-1249919	lactose metabolism repressor protein	Lactose metabolism
<i>lacG</i>	1247505-1248905	6-phospho-beta-galactosidase	Hydrolyzation of phospholactose
<i>lacE</i>	1245418-1247115	Phosphotransferase system	Cellobiose degradation
<i>lacF</i>	1247127-1247441	Phosphotransferase system	Cellobiose degradation
<i>galK</i>	1244233-1245402	Galactokinase galK1	Cellobiose degradation
<i>galE</i>	1243238-1244230	UDP-glucose 4-epimerase	Cellobiose degradation
<i>galT</i>	1241737-1243236	Galactose-1-phosphate uridylyltransferase	Cellobiose degradation
<i>ganA</i>	1240573-1241685	Arabinogalactan endo-1,4-beta-galactosidase	Extracellular degradation of plant cell walls
<i>yhfE</i>	1038439-1039479	Glucanase/aminopeptidase	Glucan degradation
<i>bglS</i>	3975640-3976371	Beta-glucanase	Glucan degradation
<i>dhaS</i>	2090352-2091911	Putative indole-3-acet-aldehyde dehydrogenase	Trp-dependent IAA synthesis
<i>ysnE</i>	3890499-3890957	Putative IAA acetyl-transferase	Trp-dependent IAA synthesis
<i>yhcX</i>	944282-945766	Nitrilase	Trp-dependent IAA synthesis
<i>alsD</i>	3691124-3691891	Alpha-acetolactate decarboxylase	Synthesis of 2,3-butanediol
<i>alsS</i>	3691952-3693664	Acetolactate synthase	Synthesis of 2,3-butanediol
<i>alsR</i>	3693821-3694729	Transcriptional regulator	Regulator of the alsDS operon
<i>pta</i>	3839217-3840188	phosphate acetyltransferase	Strongly upregulated by root exudate

Table S2. pH stress responsive genes in *Bacillus velezensis* SH-1471 genome.

Gene ID	Hit_description	Database
pH stress resistance		
chr_877	Na(+)/H(+) antiporter	NCBI nr
chr_551	Na(+)/H(+) antiporter NhaC	NCBI nr
chr_1159	Na(+)/H(+) antiporter YjbQ	Swiss-prot
chr_3212	Na(+)/H(+) antiporter MnhA	Swiss-prot
chr_3211	Na(+)/H(+) antiporter subunit A	Swiss-prot
chr_3212	Na(+)/H(+) antiporter subunit B	Swiss-prot
chr_3213	Na(+)/H(+) antiporter subunit C	Swiss-prot
chr_3214	Na(+)/H(+) antiporter subunit D	Swiss-prot
chr_3215	Na(+)/H(+) antiporter subunit E	Swiss-prot
chr_3216	Na(+)/H(+) antiporter subunit F	Swiss-prot
chr_3217	Na(+)/H(+) antiporter subunit G	Swiss-prot
chr_3211	cation/H(+) antiporter subunit A	NCBI nr
chr_3212	cation/H(+) antiporter subunit B	NCBI nr

chr_3213	cation/H(+) antiporter subunit C	eggNOG
chr_3214	cation/H(+) antiporter subunit D	NCBI nr
chr_3215	cation/H(+) antiporter subunit E	eggNOG
chr_3216	cation/H(+) antiporter subunit F	eggNOG
chr_3217	cation/H(+) antiporter subunit G	eggNOG
chr_3407	cation/H(+)antiporter subunit CPA1	NCBI nr
chr_990	cation/H(+)antiporter subunit CPA2	NCBI nr
chr_991	cation/H(+) antiporter	NCBI nr
chr_800	Ca(2+)/H(+) antiporter ChaA	Swiss-prot
chr_3988	Ca(2+)/H(+) symporter CitMHS	NCBI nr
chr_990	K(+)/H(+) antiporter subunit KhtU	Swiss-prot
chr_2813	K(+)/H(+) antiporter subunit KhtT	NCBI nr
chr_992	K(+)/H(+) antiporter modulator KhtS	Swiss-prot
chr_3762	F0F1 ATP synthase subunit beta	NCBI nr
chr_3767	F0F1 ATP synthase subunit C	NCBI nr
chr_3762	F0F1 ATP synthase subunit B	NCBI nr
chr_3764	F0F1 ATP synthase subunit A	NCBI nr
chr_3765	F0F1 ATP synthase subunit	eggNOG
chr_3766	ATP synthase F(0) sector subunit B	NCBI nr
chr_3769	ATP synthase protein I	NCBI nr
chr_1675	ATP synthase	eggNOG
chr_3768	F-type H ⁺ -transporting ATPase	NCBI nr
chr_3407	LI and Rb/H(+) antiporter	NCBI nr

Table S3. Oxidative stress responsive genes in *Bacillus velezensis* SH-1471 genome.

Gene ID	Hit_description	Database
Oxidative stress resistance		
chr_3915	DsbA family oxidoreductase	NCBI nr
chr_2539	Superoxide dismutase [Fe-Mn]	NCBI nr
chr_3260	Ferredoxin--NADP reductase 2	NCBI nr
chr_1356	Glutathione reductase	NCBI nr
chr_3689	Glutathione peroxidase-like eroxiredoxin HYR1	NCBI nr
chr_2086	Glutathione reductase	Swiss-prot
chr_908	Oxidative stress	eggNOG
chr_78	Oxidative stress	eggNOG
chr_1785	Peroxiredoxin Ohr	NCBI nr
chr_2617	Oxidative stress	NCBI nr
chr_1354	Peroxiredoxin Ohr	NCBI nr
chr_4069	Peroxiredoxin Bcp	NCBI nr
chr_871	Superoxide dismutase-like protein YojM	Swiss-prot
chr_2013	Superoxide dismutase [Mn]	Swiss-prot
chr_1876	Superoxide dismutase SodA	NCBI nr
chr_2005	Superoxide dismutase [Fe]	Swiss-prot

chr_2329	Thiol-disulfide oxidoreductase ResA	Swiss-prot
chr_1876	Thioredoxin-like protein YneN	Swiss-prot
chr_3412	Thioredoxin-like protein YtpP	Swiss-prot
chr_3334	Thioredoxin-like protein YusE	Swiss-prot
chr_3545	Thioredoxin reductase OS	Swiss-prot
chr_1426	Thioredoxin	eggNOG
chr_309	Thioredoxin reductase (NADPH)	NCBI nr
chr_3053	Thioredoxin	NCBI nr
chr_444	Thioredoxin	NCBI nr
chr_2310	Thioredoxin reductase	NCBI nr
chr_4070	Thioredoxin-disulfide reductase	NCBI nr
chr_2906	Thioredoxin 1	NCBI nr
chr_4160	Thioredoxin	NCBI nr

Table S4. Ionic and heavy metal stress responsive genes in *Bacillus velezensis* SH-1471 genome.

Gene ID	Hit_description	Database
Ionic and heavy metal stress resistance		
chr_1279	Magnesium transporter YhiD	Swiss-prot
chr_1374	Magnesium transporter MgtE	Swiss-prot
chr_2514	Magnesium transporter CorA	NCBI nr
chr_813	Magnesium and cobalt transporter CorA	NCBI nr
chr_1368	Cobalt ABC transporter	NCBI nr
chr_156	Cobalt ABC transporter	NCBI nr
chr_154	Cobalt transporter ATP-binding subunit	NCBI nr
chr_1367	Cobalt/nickel transport system permease protein	NCBI nr
chr_643	Cobalt efflux system protein (zinc/cadmium/cobalt)	NCBI nr
chr_3032	Cobalt efflux system protein (zinc/cadmium/cobalt)	NCBI nr
chr_535	Cadmium, cobalt and zinc/H(+)-K(+) antiporter	Swiss-prot
chr_3416	Cadmium, zinc and cobalt-transporting ATPase	Swiss-prot
chr_1708	Membrane-associated zinc metalloprotease	eggNOG
chr_3178	Zinc metallopeptidase	NCBI nr
chr_1427	Zinc-transporting ATPase	Swiss-prot
chr_3831	Zinc metalloprotease YwhC	Swiss-prot
chr_1168	Zinc metalloprotease zmpB	NCBI nr
chr_3413	Zinc-dependent metalloprotease	NCBI nr
chr_76	ATP-dependent zinc metalloprotease FtsH	NCBI nr
chr_274	Zinc transport system permease protein	NCBI nr
chr_273	Zinc transport system ATP-binding protein	NCBI nr
chr_272	Zinc transport system zinc-binding lipoprotein adcA	NCBI nr
chr_3138	Manganese transport protein MntH	NCBI nr
chr_3137	Manganese/iron transport system ATP-binding protein	NCBI nr
chr_813	Metal ion transporter YfjQ	Swiss-prot
chr_422	Divalent metal cation transporter MntH	Swiss-prot

chr_388	Mn2+/Fe2-transporter NRAMP family	NCBI nr
chr_965	Fluoride ion transporter CrcB	Swiss-prot
chr_964	Fluoride ion transporter CrcB 1	Swiss-prot

Table S5. Heat stress responsive genes in *Bacillus velezensis* SH-1471 genome.

Gene ID	Hit_description	Database
Heat stress resistance		
chr_66	heat shock protein	NCBI nr
chr_78	Heat shock protein 33 homolog	NCBI nr
chr_1389	heat shock protein HtpX	NCBI nr
chr_2583	Heat shock protein 70	NCBI nr
chr_1389	heat shock protein HtpX	NCBI nr
chr_2585	Heat shock protein DnaK	eggNOG
chr_753	Heat induced stress protein YflT	eggNOG
chr_779	Heat shock protein (HSP20)	eggNOG
chr_2584	heat shock proteins DnaK and GrpE	eggNOG
chr_2585	heat shock protein	eggNOG

Table S6. Other stress responsive genes in *Bacillus velezensis* SH-1471 genome.

Gene ID	Hit_description	Database
Other stress resistance		
chr_59	General stress protein CTC	NCBI nr
chr_264	General stress protein 69	NCBI nr
chr_277	General stress protein 16U	Swiss-prot
chr_429	general stress protein, partial	NCBI nr
chr_1356	General stress protein 17o	NCBI nr
chr_4005	universal stress protein	NCBI nr
chr_1634	Asp23/Gls24 family envelope stress response protein	NCBI nr
chr_2474	Asp23/Gls24 family envelope stress response protein	NCBI nr
chr_3907	GlsB/YeaQ/YmgE family stress response membrane protein	NCBI nr
chr_399	General stress protein 39	NCBI nr
chr_402	General stress protein 26	NCBI nr
chr_753	General stress protein 17M	NCBI nr
chr_789	General stress protein 18	NCBI nr
chr_1993	General stress protein 16O	NCBI nr
chr_3125	General stress protein 20U	NCBI nr
chr_3190	General stress protein 13	NCBI nr
chr_3671	General stress protein 14	NCBI nr
chr_3931	General stress protein A	NCBI nr
chr_276	Stress response protein SCP2	NCBI nr
chr_974	Stress response protein NhaX	NCBI nr
chr_987	Stress response protein YhaX	NCBI nr
chr_1377	Stress response protein YkoL	NCBI nr

chr_1851	Stress response protein YvgO	NCBI nr
chr_3406	Stress response protein YvgO	NCBI nr
chr_3746	Stress response protein CsbD	NCBI nr
chr_2837	Stress response	eggNOG
chr_3356	metalloregulation DNA-binding stress protein	NCBI nr
chr_4	DNA replication/repair protein RecF	NCBI nr
chr_25	DNA replication and repair protein RecR	NCBI nr
chr_413	DNA mismatch repair protein MutT	NCBI nr
chr_986	DNA alkylation repair protein	NCBI nr
chr_2850	DNA repair protein RadC	NCBI nr
chr_98	DNA repair protein RadaA	Swiss-prot
chr_2464	DNA repair protein RecN	Swiss-prot
chr_2563	DNA repair protein RecO	Swiss-prot
chr_1757	DNA mismatch repair protein MutS	Swiss-prot
chr_1758	DNA mismatch repair protein MutL	Swiss-prot
chr_4168	DNA repair enzyme AdaA	Swiss-prot
chr_682	DNA replication and repair of damaged DNA	eggNOG
chr_1860	DNA damage (SOS response), including recA and lexA	eggNOG
chr_2963	repair of DNA damaged	eggNOG
chr_4128	Serine/threonine protein kinase	NCBI nr
chr_462	Serine-protein kinase RsbW	NCBI nr
chr_719	Serine/threonine protein kinase	NCBI nr
chr_1628	serine/threonine protein kinase, bacterial	NCBI nr
chr_73	serine/threonine protein kinase	eggNOG

Table S7. Drug resistance related genes in *Bacillus velezensis* SH-1471 whole-genome

Gene ID	Hit_description	Database
chr_259	Lincomycin efflux MFS transporter Lmr(B)	NCBI nr
chr_427	Multidrug resistance protein	eggNOG
chr_202	Multidrug ABC transporter ATP-binding protein	eggNOG
chr_216	Multidrug ABC transporter	eggNOG
chr_581	Multidrug-efflux transporter 2 regulator	eggNOG
chr_599	Multidrug resistance protein, SMR family	eggNOG
chr_613	Multidrug ABC transporter ATP-binding protein	eggNOG
chr_744	Multidrug ABC transporter ATP-binding protein	eggNOG
chr_746	MFS transporter	eggNOG
chr_830	Multidrug ABC transporter ATP-binding protein	eggNOG
chr_868	ABC-type multidrug transport system, ATPase component	eggNOG
chr_3301	Multidrug resistance protein 2	Swiss-prot
chr_976	Multidrug resistance ABC transporter ATP-binding/permease protein YheI	Swiss-prot
chr_977	Multidrug resistance ABC transporter ATP-binding/permease protein YheH	Swiss-prot
chr_1786	Multidrug resistance protein EbrB	Swiss-prot
chr_1787	Multidrug resistance protein EbrA	Swiss-prot

chr_1946	Multidrug resistance protein YoeA	Swiss-prot
chr_366	MFS-type transporter YcnB	Swiss-prot
chr_529	MFS-type transporter YdeG	Swiss-prot
chr_555	MFS-type transporter YdeR	Swiss-prot
chr_576	MFS-type transporter YdgK	Swiss-prot
chr_1012	ABC-type multidrug transport system, ATPase component	eggNOG
chr_1084	Multidrug resistance protein, MATE family	eggNOG
chr_1291	Multidrug resistance efflux transporter family protein	eggNOG
chr_1349	Multidrug resistance protein, SMR family	eggNOG
chr_1349	Multidrug resistance protein YkkC	eggNOG
chr_1425	Multidrug transporter MatE	eggNOG
chr_2019	Multidrug resistance protein NorM	eggNOG
chr_2434	Multidrug resistance protein	eggNOG
chr_3347	MFS transporter, DHA2 family, multidrug resistance protein B	eggNOG
chr_3551	Multidrug resistance ABC transporter ATP-binding/permease protein BmrA	eggNOG
chr_652	MFS-type transporter YqjV	Swiss-prot
chr_738	MFS-type transporter YfnC	Swiss-prot
chr_793	MFS-type transporter YfkL	Swiss-prot
chr_799	MFS-type transporter YfkF	Swiss-prot
chr_840	MFS-type transporter YfiU	Swiss-prot
chr_910	MFS-type transporter YhcA	Swiss-prot
chr_1110	MFS-type transporter YitZ	Swiss-prot
chr_1335	MFS-type transporter YubD	Swiss-prot
chr_1447	MFS-type transporter YkuC	Swiss-prot
chr_1951	MFS-type transporter YbcL	Swiss-prot
chr_291	MFS-type transporter yusP	eggNOG
chr_598	Multidrug resistance protein, SMR family	eggNOG
chr_909	Multidrug resistance protein MdtN	eggNOG
chr_1264	Multidrug resistance protein B like protein	eggNOG
chr_1350	Multidrug resistance protein, SMR family	eggNOG
chr_3725	MFS-type transporter YwoD	eggNOG
chr_175	MFS transporter	eggNOG
chr_282	MFS transporter	eggNOG
chr_301	MFS transporter, ACS family, D-galactonate transporter	eggNOG
chr_315	MFS transporter	eggNOG
chr_2611	MFS-type transporter YfiS	Swiss-prot
chr_2640	MFS-type transporter YybF	Swiss-prot
chr_2959	MFS-type transporter YtbD	Swiss-prot
chr_3089	MFS-type transporter YttB	Swiss-prot
chr_3347	MFS-type transporter YusP	Swiss-prot
chr_3374	MFS-type transporter YvqJ	Swiss-prot
chr_3580	MFS-type transporter YvkaA	Swiss-prot
chr_3723	MFS-type transporter YwoG	Swiss-prot

chr_3859	MFS-type transporter YwfA	Swiss-prot
chr_3860	MFS-type transporter YdgK	Swiss-prot
chr_3991	MFS-type transporter YxiO	Swiss-prot
chr_4101	MFS-type transporter YxaM	Swiss-prot
chr_4142	MFS-type transporter YfmI	Swiss-prot
chr_291	EmrB/QacA subfamily drug resistance transporter	NCBI nr
chr_576	Drug resistance transporter, Bcr/CflA family	NCBI nr
chr_576	MFS transporter, DHA1 family, bicyclomycin/chloramphenicol resistance protein	NCBI nr
chr_909	Multidrug resistance protein A	NCBI nr
chr_910	MFS-type transporter ycnB	NCBI nr
chr_910	EmrB/QacA family drug resistance transporter	NCBI nr
chr_3347	EmrB/QacA family drug resistance transporter	NCBI nr
chr_3860	Drug resistance transporter, Bcr/CflA family	NCBI nr
chr_498	MFS transporter	eggNOG
chr_504	MFS transporter	eggNOG
chr_564	MFS transporter	eggNOG
chr_594	MFS transporter, DHA1 family, chloramphenicol resistance protein	eggNOG
chr_597	MFS transporter	eggNOG
chr_605	MFS transporter, SP family, major inositol transporter	eggNOG
chr_847	Multidrug MFS transporter	eggNOG
chr_850	MFS-type transporter YfhI	eggNOG
chr_1010	MFS transporter	eggNOG
chr_1062	MFS transporter, DHA1 family, multidrug resistance protein	eggNOG
chr_1297	MFS transporter	eggNOG
chr_1361	MFS transporter	eggNOG
chr_1735	MFS transporter	eggNOG
chr_1815	MFS transporter	eggNOG
chr_1897	MFS transporter	eggNOG
chr_1967	RbtT/DalT/CsbX family MFS transporter	eggNOG
chr_2538	MFS transporter	eggNOG
chr_2627	Tet(L)/Tet(K)/Tet(45) family tetracycline efflux MFS transporter	eggNOG
chr_3069	MFS transporter, AGZA family, xanthine/uracil permease	eggNOG
chr_3199	Multidrug resistance protein mdtG	eggNOG
chr_3374	MFS transporter, DHA3 family, macrolide efflux protein	eggNOG
chr_3470	MFS transporter, SP family, arabinose:H ⁺ symporter	eggNOG
chr_3521	MFS transporter	eggNOG
chr_3650	Metabolite transport protein csbC	eggNOG
chr_3814	MFS transporter, NNP family, nitrate transporter	eggNOG
chr_3854	MFS transporter	eggNOG
chr_4046	MFS transporter, SP family, inositol transporter	eggNOG
chr_4054	Sugar porter family MFS transporter	eggNOG
chr_4066	MFS-type transporter	eggNOG
chr_4162	MFS transporter	eggNOG

