

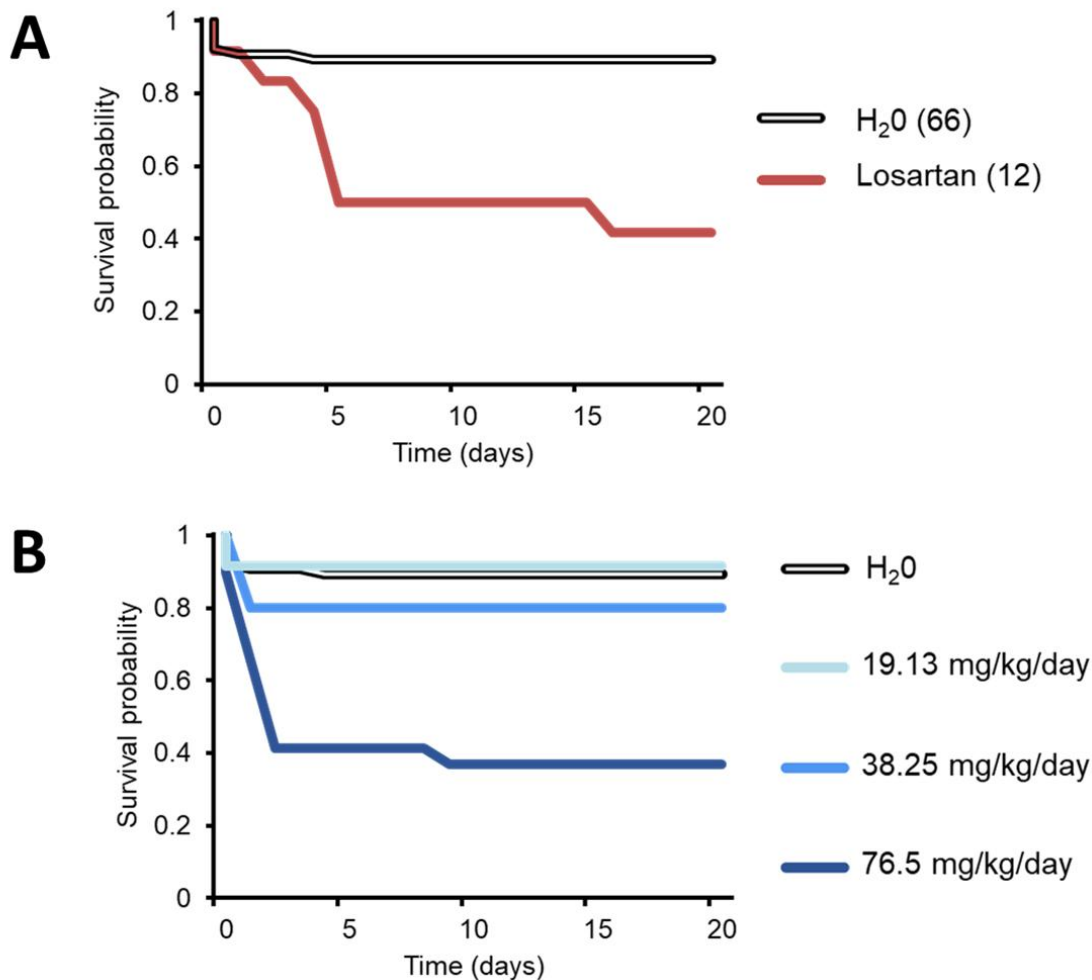


Figure S1- Dose curve of Losartan in C57BL/6 mice to determine a dose with minimal lethality. (A) Kaplan-Meier survival curve of WT mice after treatment with 0.6 g/liter of Losartan in the drinking water. Losartan was administered in the drinking water of dams during and after the pregnancy. The curves of treated mice were compared with non-treated WT mice using the Gehan-Breslow-Wilconox test to determine significance. A significant reduction ($p < 0.0001$) in survival during the first 20 days was observed ((N= number of animals)) (B) Kaplan-Meier survival curve of WT mice after Losartan treatment with 76.5, mg/kg/day, 38.25 mg/kg/day, and 19.125mg/kg/day. Losartan was administered in the drinking water of the dams at P18 and continued in the mice drinking water for 20 days postnatally. The curves were compared with Gehan-Breslow-Wilconox test to determine significance. A significant reduction ($p < 0.0001$) in survival during the first 20 days was observed with 76.5mg/kg/day. (N= number of animals).

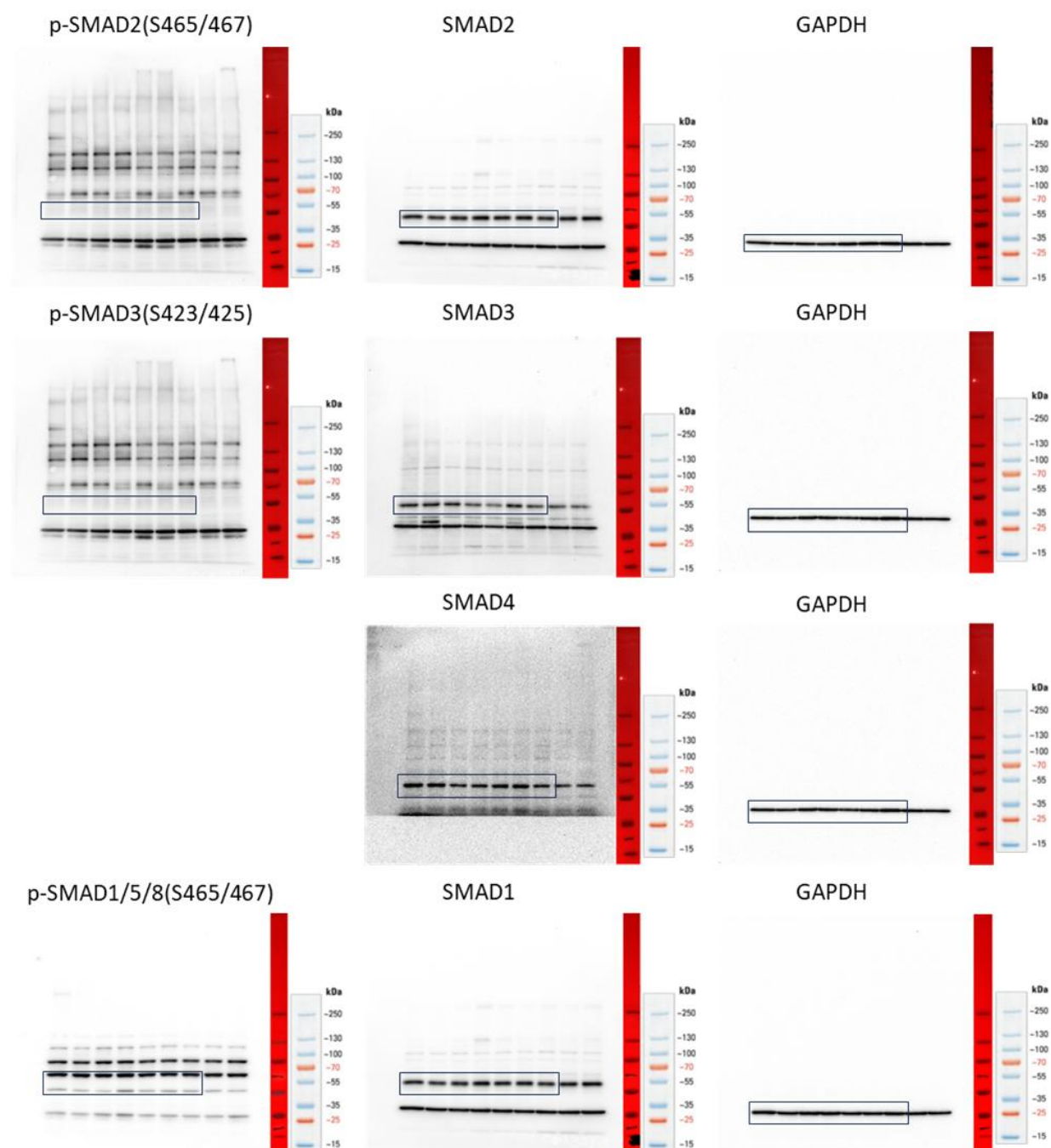


Figure S2- TGF- β 1 pathway is not significantly dysregulated in patient fibroblasts. Proteins related to TGF- β pathway were determined in protein lysates by WB: p-SMAD2 (S465/467), p-SMAD3 (S423/425), Smad4 and p-SMAD1/5/8 (S465/467). Representative images were selected from seven and four independent experiments for p-SMAD2 and others, respectively. GAPDH was used as loading control. Cropped blots were used in Figure 2B, to improve the clarity and conciseness of the figure presentation. Original uncropped blots are shown with a rectangle indicating the cropped area.

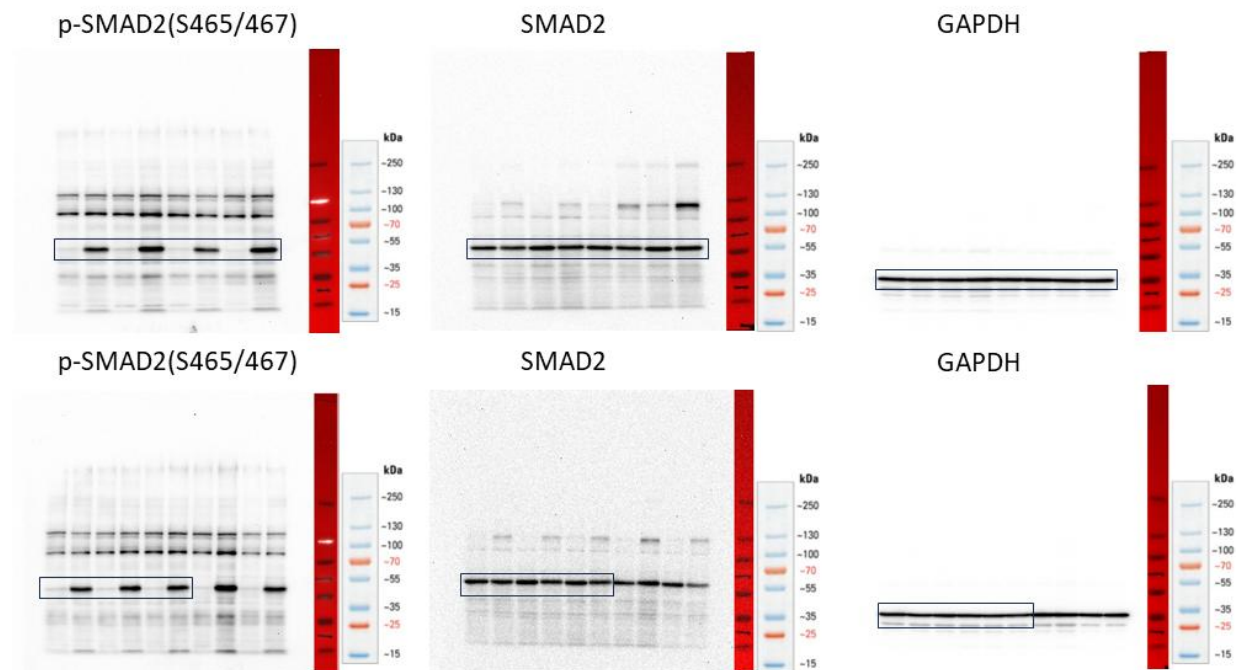


Figure S3- TGF- β pathway showed normal response. Cells were stimulated with TGF- β 1 for 24 hours and p-SMAD2 and SMAD2 were determined by WB. GAPDH was used as loading control. Cropped blots were used in Figure 2D, to improve the clarity and conciseness of the figure presentation. Original uncropped blots are shown with a rectangle indicating the cropped area.

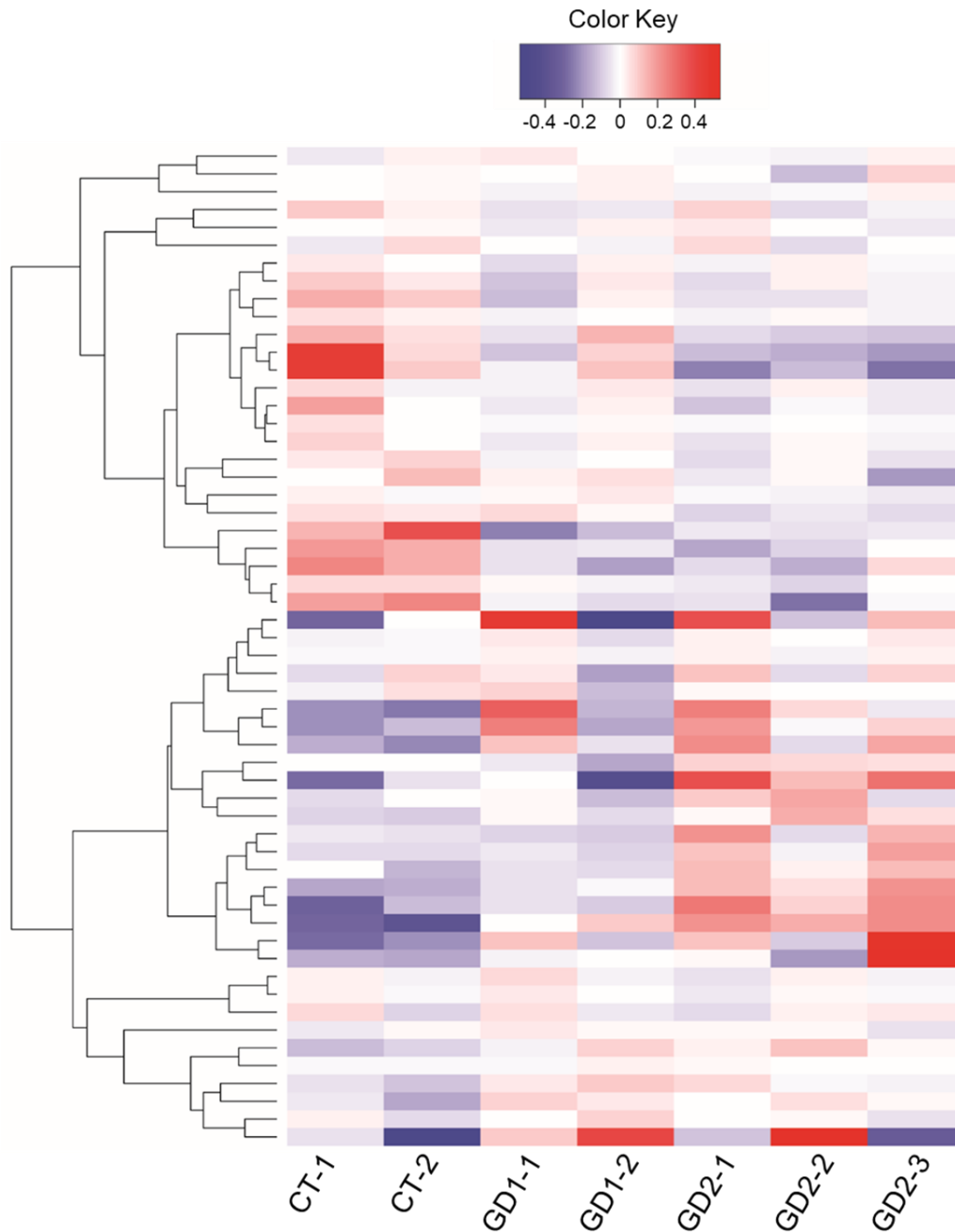


Figure S4- Clustering of genes associated with the TGF- β signaling pathway showed no significant differences and random expression between samples. RNA-Seq transcriptome analysis of patient fibroblast from control healthy individuals (CT, N=2), ADAMTSL2-related GD (GD1, N=2), FBN1-related GD (GD2, N=3). Supervised k-Means clustering of transcripts associated with the TGF- β signaling pathway (GSEA), into groups based on expression patterns.

Table S1- List of genes associated with the TGF- β signaling pathway. GSEA database was used to identify all genes and raw reads from the RNA-Seq transcriptome are shown for fibroblast from control healthy individuals (CT, N=2), ADAMTSL2-related GD (GD1, N=2), FBN1-related GD (GD2, N=3).

Symbol	CT-1	CT-2	GD1-1	GD1-2	GD2-1	GD2-2	GD2-3
ACVR1	2856	2679	3233	2909	3349	3874	3153
APC	2152	2110	2099	2237	2163	1733	2252
ARID4B	1501	1257	1196	1385	1203	1322	1154
BCAR3	1797	1772	2130	2285	2888	2477	2900
BMP2	18	18	20	58	43	37	31
BMPR1A	2396	2125	2142	2266	2216	2186	1988
BMPR2	6121	6007	6635	5781	6628	6190	6119
CDK9	1734	1416	1462	1661	1432	1590	1316
CDKN1C	183	194	148	225	163	165	198
CTNNB1	10278	9752	9766	9734	14132	9804	11769
ENG	14066	17615	9022	10455	11692	11044	10498
FKBP1A	6247	6434	6817	6667	6831	6588	5644
FNTA	937	831	891	982	877	827	740
FURIN	4932	4396	3992	4157	4954	3921	3856
HDAC1	2333	2026	1640	2152	1809	2032	1734
HIPK2	3605	2736	2633	2958	2452	2739	2451
ID1	2180	2104	2296	2186	2928	2318	2912
ID2	6557	5877	7377	7987	7882	6800	6226
ID3	3493	4963	8742	2508	8211	4446	5622
IFNGR2	2100	1637	1911	1895	2607	2195	2348
JUNB	3687	4204	3827	4038	3561	3667	2609
KLF10	2011	2061	2321	2746	2574	2825	2309
LTBP2	54683	64699	72004	69603	105244	83883	90844
MAP3K7	3082	2732	3223	2842	2791	3029	2637
NCOR2	13130	10574	12820	11744	11522	12432	11690
NOG	39	86	443	190	449	199	993
PMEPA1	880	1299	1458	643	2684	1795	2127
PPM1A	2343	2306	2136	2426	2518	2273	2026
PPP1CA	3593	3252	3056	3563	3347	3464	3091
PPP1R15A	5442	4431	6265	6053	5810	6020	5386
RAB31	4608	4069	6427	5317	7633	5099	6470
RHOA	30302	29138	28086	27443	27460	24961	25797
SERPINE1	57875	53218	104266	63407	99556	77987	64768
SKI	6538	6773	7095	6921	6825	6459	6539
SKIL	2505	2996	2899	2129	3329	2457	2883
SLC20A1	3930	4042	2908	2800	2907	2031	2755
SMAD1	791	913	999	643	888	832	789
SMAD2	3478	3236	3054	3257	3159	3227	2873

SMAD3	5612	3498	3024	3732	2321	2643	2011
SMAD4	1954	1758	1983	1875	1790	1884	1670
SMAD6	1245	1023	832	1231	815	752	675
SMAD7	1706	1976	1823	1762	2099	1601	1681
SMURF1	1938	1704	1195	1595	1394	1337	1325
SMURF2	5474	3277	2626	3547	2647	2463	2182
SPTBN1	24804	23042	18488	19059	16907	17924	18376
TGFB1	7650	7316	7095	6245	8541	8107	7464
TGFB2	89	78	206	250	257	57	979
TGFB3	399	496	1205	462	1115	696	803
TGFBR1	8615	7453	5899	5097	6043	5158	6486
TGFBR2	8675	7519	12271	13904	16186	14625	14804
TGFBR3	3130	1469	3825	5691	2999	6680	1923
TGIF1	1937	1809	1962	1824	1576	1630	1448
TRIM33	1248	1297	1079	1164	1020	1172	944
UBE2D3	10547	9147	10202	11409	10469	10348	8801
WWTR1	6069	6339	6607	5632	7659	7963	5583
XIAP	2133	2009	2240	2058	2316	2039	2061

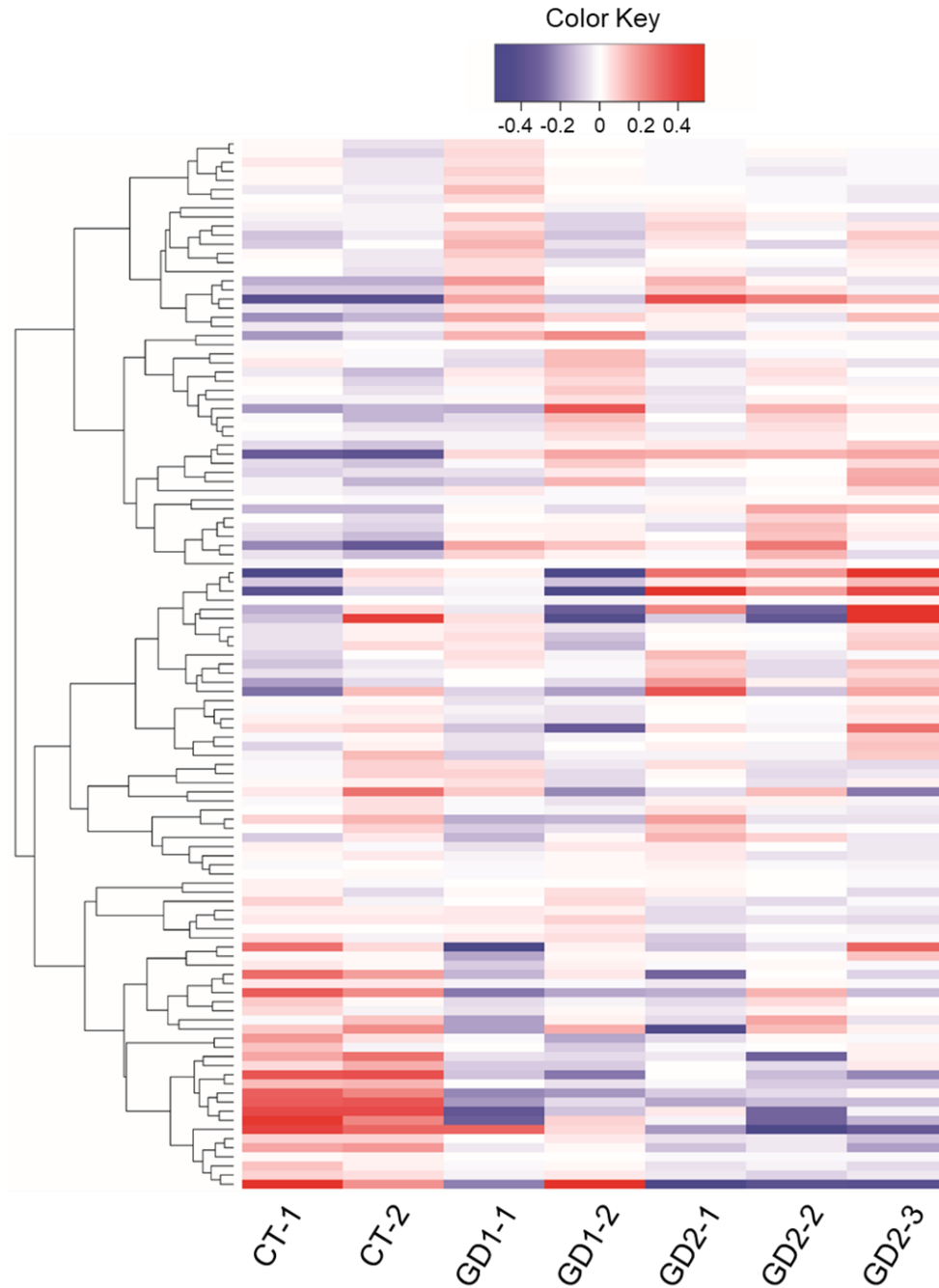


Figure S5- Clustering of genes reported to be upregulated following TGF- β stimulation showed no significant differences between samples. RNA-Seq transcriptome analysis of patient fibroblast from control healthy individuals (CT, N=2), ADAMTSL2-related GD (GD1, N=2), FBN1-related GD (GD2, N=3). Supervised k-Means clustering of transcripts previously reported to be upregulated following TGF- β stimulation (GSEA), into groups based on expression patterns.

Table S2- List of genes reported to be upregulated following TGF- β stimulation. GSEA database was used to identify all genes and raw reads from the RNA-Seq transcriptome are shown for fibroblast from control healthy individuals (CT, N=2), ADAMTSL2-related GD (GD1, N=2), FBN1-related GD (GD2, N=3).

Symbol	CT-1	CT-2	GD1-1	GD1-2	GD2-1	GD2-2	GD2-3
ABCE1	3494	2954	3608	3226	3181	2915	2792
ABRACL	393	311	432	361	411	304	338
ACTN1	40710	37831	33022	25661	38139	33630	41462
ACTR3	13798	14293	14309	12566	14940	14146	14129
ARHGAP26	1239	1555	1289	744	983	1270	636
BAG2	4718	3770	2282	2487	2551	3435	2303
BAZ1A	1502	1345	1823	1539	1826	1665	1354
BCAT1	12208	10008	10532	8121	6237	4004	4593
BHLHE40	1198	2514	2529	1220	3311	2892	3650
BMP1	7301	5654	5582	4611	5145	5429	4808
BTBD10	1487	1459	1395	1321	1504	1269	1154
CACYBP	2356	2164	2040	2115	1865	1837	1514
CCDC34	272	255	424	297	295	272	227
CCN2	53675	70680	60791	53895	90611	56341	67377
CCT2	4638	4342	4278	4370	4542	3910	3610
CCT3	7429	6717	7387	7538	6906	7094	6332
CCT8	5199	4483	4452	5317	4393	4719	3861
CD44	29769	28507	29602	47068	32087	37001	31432
CDK17	1792	1883	1354	1763	1540	2033	1389
CFAP298	28	32	16	17	10	6	7
CHCHD3	2009	1726	1941	1765	1934	1774	1635
COQ10B	1194	1133	1248	1184	1409	1049	1174
CTU2	436	408	453	321	395	322	366
CYCS	2166	1975	2321	1881	2370	1974	1976
CYP1B1	20101	20616	14480	19819	10887	18612	15489
DDX21	4416	4489	5508	4304	4854	4046	4403
DLAT	1425	1305	1529	1397	1484	1332	1268
DPY19L1	1917	2060	1730	2049	2418	2140	1675
EEF1E1	81	43	55	58	67	52	44
EIF2B3	739	785	792	638	780	610	535
EIF2S1	3617	3119	3852	3354	3786	3506	3140
EIF2S2	10223	9847	9599	9051	9718	9233	9065
EIF3A	17780	15151	16843	18226	15838	15952	14910
EIF3B	6505	5555	6727	6663	6543	7051	5977
EIF4G1	30822	27897	27439	27271	28733	27233	25711
EIF5	12588	10761	12159	11934	11619	12326	10516
EIF5A	13988	13927	15416	13945	16348	13182	12384
ERCC1	2168	1940	2045	2220	2015	2113	1811

ESD	2473	2131	2511	2813	2618	2432	2397
EXT1	17229	12704	7541	11106	10112	7318	7915
GADD45G	26	24	22	8	44	27	40
GARS1	22886	23445	24059	19463	23089	21329	22056
GEMIN6	306	252	228	297	306	255	206
GNL3	2631	2381	3780	3002	3508	2904	2439
GTF2F2	910	672	757	1097	803	874	1022
GTPBP4	2501	2499	2723	2322	2589	2362	2353
HMGA2	1847	729	319	1197	118	183	166
HSPA9	14835	14429	17951	13949	16718	15027	15136
HSPD1	8214	7462	7866	7956	6893	6628	5981
HSPE1	86	89	82	98	109	76	63
HSPH1	3743	3780	4031	3293	3652	3158	3008
IDH3A	1397	1417	1149	1184	1495	1225	1142
IPO5	16133	16504	21666	22765	16959	18194	15422
JADE1	3212	2969	1604	1819	1612	1630	1505
KLF6	5806	5663	8235	7431	7068	6143	6857
KPNB1	18923	15887	15983	16053	15091	14803	13091
LMLN	520	478	675	560	689	842	733
LRP8	421	446	189	200	499	260	234
LYAR	421	329	438	392	359	349	313
MAK16	1383	1275	1295	1310	1332	1246	1114
MMP14	35694	32254	60292	44274	70636	60771	50058
MPHOSPH6	422	455	401	361	444	430	338
MRT04	1197	966	1227	1096	1076	1065	958
MSN	32662	32088	26742	25866	28758	25843	26270
MYBBP1A	2309	1971	2481	1867	2134	2052	1964
MYC	2728	2095	4071	3753	3509	4228	2841
NAA15	2168	1888	1786	1919	1746	1581	1526
NAA25	858	780	734	692	775	726	720
NAE1	1500	1316	1176	1374	1311	1297	1147
NCL	21278	17391	20507	21037	19143	19574	16738
NIN	3013	3272	2648	2824	2854	2737	2874
NIP7	1102	985	1167	1059	1049	1034	1046
NOLC1	2659	2415	3023	2341	2804	2575	2137
NSUN2	2092	2086	2276	1801	2106	1999	2031
NUAK1	1995	3364	2366	1223	1914	1284	3353
PELO	1152	1222	1131	1202	1270	1129	1249
PHGDH	14594	11972	9148	10582	7626	9873	8266
PMEPA1	880	1299	1458	643	2684	1795	2127
PPA1	2471	1905	2061	1772	2006	1949	1849
PPP1R2	1605	1499	1606	1546	1570	1583	1363
PPRC1	2173	1739	1767	1882	1766	1837	1664
PREP	1600	1523	1448	1481	1544	1465	1538
PUM3	1449	1174	1425	1265	1263	1169	1101

REPS2	55	22	107	67	67	43	20
RFESD	35	24	27	21	37	42	35
RPF2	981	781	1175	1048	980	1196	796
RRM2	3364	3108	2495	2588	2254	2363	1805
RSL1D1	4186	3461	4446	4582	4053	4185	3608
RWDD1	1648	1664	1949	1755	2034	1582	1843
SALL1	883	558	67	526	383	419	769
SET	11031	9268	10388	10279	8924	9302	8507
SHMT2	12296	10226	9896	10160	9739	10751	9255
SLC20A1	3930	4042	2908	2800	2907	2031	2755
SLC25A5	4339	3770	3820	4530	3818	3755	3482
SLC8A1	2004	1803	623	932	1197	659	949
SLTM	3249	2723	2923	3335	2889	3084	2703
SNX7	1694	1457	1791	1739	1556	1915	1557
SRM	4917	4460	4082	3696	3963	3443	3116
SYNCRIP	6105	5547	5967	5957	5646	5482	4939
TIMP1	72296	65985	44665	37681	48784	41453	34289
TNFRSF12A	4445	4511	5187	4634	6244	4988	5030
TOMM20	4763	4161	4808	4914	5110	4849	4686
TOMM70	3029	2401	2628	2760	2478	2292	2233
TPM1	42373	48295	45819	33549	58562	33258	65304
TPM4	104156	93560	83632	96070	97643	92349	94311
UCHL3	20	20	27	28	27	25	20
USP10	2235	2012	1934	1927	1863	1936	1710
UTP18	900	684	838	869	842	764	612
WDR75	1100	853	1142	1015	1002	1001	864
WDR77	459	384	501	396	449	412	415
YBX3	6451	5105	5756	6966	6108	6403	5442
ZC3H15	2412	2197	2363	2273	2026	2083	1844
ZIC4	29	3	329	406	401	363	358
ZMIZ1	8798	8233	8747	9353	9006	8714	9223
ZYX	25011	21046	13979	14043	15728	15447	15354

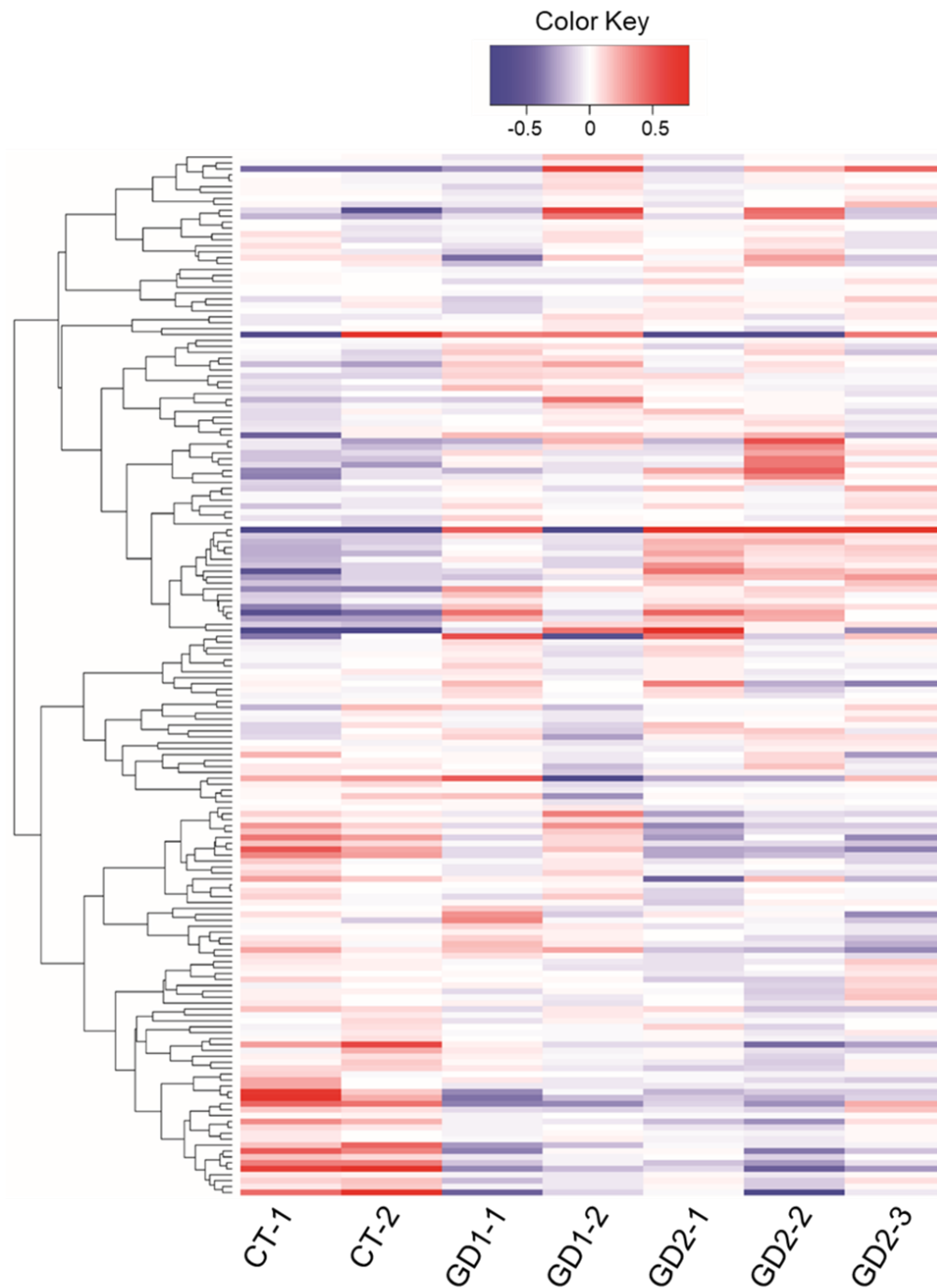


Figure S6- Clustering of genes reported to be downregulated following TGF- β stimulation showed no significant differences between samples. RNA-Seq transcriptome analysis of patient fibroblast from control healthy individuals (CT, N=2), ADAMTSL2-related GD (GD1, N=2), FBN1-related GD (GD2, N=3). Supervised k-Means clustering of transcripts previously reported to be downregulated following TGF- β stimulation (GSEA), into groups based on expression patterns.

Table S3- List of genes reported to be downregulated following TGF- β stimulation. GSEA database was used to identify all genes and raw reads from the RNA-Seq transcriptome are shown for fibroblast from control healthy individuals (CT, N=2), ADAMTSL2-related GD (GD1, N=2), FBN1-related GD (GD2, N=3).

Symbol	CT-1	CT-2	GD1-1	GD1-2	GD2-1	GD2-2	GD2-3
ACAA2	1200	1084	1454	1270	1625	1679	1415
ACBD4	245	170	129	222	171	182	139
ADAM10	10314	8740	7160	9238	7342	7151	5949
ADD3	10244	6794	4346	6565	3994	4075	3171
ADIPOR2	2609	2495	2637	2728	2749	2595	2292
ADO	1281	1361	1084	1094	1054	929	1098
AGAP1	1581	1556	1383	1441	1572	1596	1613
ALAD	1748	1568	1309	1760	1438	1601	1472
ALCAM	13256	16586	8707	8190	8199	5652	6024
ANAPC1	1556	1293	1317	1360	1149	1270	1003
AP3B1	3839	3621	3283	3434	3500	2992	3055
APPL2	4220	3387	5333	6553	4807	5448	4421
ARNT	2963	2924	2895	3342	3349	3381	2690
ATP5IF1	1613	1463	1419	1635	1471	1291	1351
ATP6V1F	1853	1705	1835	1811	2030	1621	1641
AZI2	2689	2602	3371	2910	3241	3461	2654
BBX	4066	3409	2625	3003	3108	2702	2804
BET1L	3203	2775	2712	2997	2709	2818	2858
BLOC1S1	19	39	37	29	34	30	40
BNIP3L	8416	6561	6970	9428	7603	12424	8201
BSG	24135	20080	20048	19328	20780	19272	20056
C4B	43	41	7	24	12	19	36
CCDC80	171981	118959	121680	118473	120533	112405	95779
CCNI	14599	12674	12142	14859	11753	12127	11421
CCNL2	3005	2489	2516	2776	2240	2806	2503
CD2AP	1250	1192	1217	1252	1237	1040	1281
CDKN2C	892	827	684	1160	724	880	703
CHP1	4449	3938	3879	4510	3836	4003	3527
CNTNAP1	4707	3638	2149	3147	1878	2795	1609
COL6A1	168627	160165	191307	173126	172189	247175	189493
COPZ2	2770	2326	2187	2312	2424	2100	2733
CST3	7868	7710	5916	7245	7976	8012	7208
CTDSP2	11750	9643	11603	12665	10540	12453	9777
CTNNBIP1	574	549	574	533	601	554	485
CTSA	12365	13965	11644	11725	15798	13585	12232
CTSB	41815	65802	72852	79364	72001	82246	43770
CTSZ	5876	6444	5788	7037	9398	9628	9594
DAB2	15167	16449	23417	20989	25754	25500	21210

DAG1	8886	8310	5267	6685	7452	6092	7080
DBI	1949	2006	1888	2052	2074	2136	1674
DCAF8	767	625	602	828	622	752	645
DCN	99463	49838	76109	197132	107036	168024	78886
DCTN6	464	470	372	392	444	382	331
DENND4C	1670	1243	1244	1613	1359	1473	1124
DNAJA1	5610	5497	6026	5464	6072	5781	4803
DNMT3A	1168	804	759	953	753	897	626
DUSP18	337	350	332	433	384	349	356
DUSP8	99	96	71	32	29	70	112
EFNA5	105	62	160	577	161	566	124
EMC2	968	879	790	918	892	938	841
ENPP4	18	131	68	136	367	592	169
EPHX1	3471	2713	2300	3096	3227	3694	2686
EZR	6791	5789	2204	2530	3209	2587	4440
FAM234A	5228	4828	4298	4060	3670	3804	4132
FTH1	199882	185644	226193	231012	312097	266726	251121
FUT8	2416	2400	2220	4906	3135	3095	2650
GAA	4607	6489	5813	4442	5398	5369	5773
GABARAP	176	115	157	121	180	123	136
GABARAPL1	5578	6932	2777	3482	4238	4049	3765
GAS1	1546	1987	1951	2278	2644	3627	2186
GATA6	1393	1479	208	333	381	142	231
GDI1	5944	5214	4556	4898	5329	4867	4760
GLUL	5611	4680	3878	7100	3220	3991	3505
GOLM1	3312	2992	5119	4064	5400	5777	3909
GRINA	6820	6432	6364	7701	7207	7970	5815
GRN	18066	17609	18624	19966	27031	27504	21006
GSN	12051	9258	9258	11743	9997	11112	12173
GSTM1	1	1143	577	664	1	0	578
H1-0	4206	4440	4424	4603	4558	5213	4160
H2AZ2	4681	3837	3806	4692	4494	4770	3937
HMGN2	9657	7710	6906	8792	5671	6745	6164
IAH1	1036	914	830	995	898	987	966
ID1	2180	2104	2296	2186	2928	2318	2912
ID2	6557	5877	7377	7987	7882	6800	6226
ID3	3493	4963	8742	2508	8211	4446	5622
IGFBP4	53174	44583	33893	44268	45963	34606	30752
ING4	809	614	725	791	790	779	760
IQCJ-SCHIP1	195	232	167	179	208	155	212
ISYNA1	400	302	250	288	167	170	349
ITM2B	8361	8081	8234	9647	11026	9348	10159
KCNC4	562	452	571	516	618	366	415
KCND3	1928	1904	2358	409	938	935	1580
KMT2E	3390	2872	2806	3668	2944	3372	2953

LAMA5	1391	467	63	184	196	151	195
LAMP2	9550	10454	10985	9974	13386	12205	11269
LEPROT	4590	4928	3764	4669	5439	4992	5204
LY6E	7030	5029	4917	4854	5228	5952	3300
MAF1	4361	3632	3338	3959	3553	3490	3502
MAGED1	15332	13392	11381	13177	12100	11746	11950
MAN2B1	2770	2063	2119	2751	2443	2756	1987
MAOA	97	78	20	28	150	71	110
MAT2B	1928	1805	1971	2009	1629	1790	1525
MET	6444	4812	1946	3461	3478	2077	2481
MGAT3	172	21	0	0	1	2	7
MGST1	4455	3841	4522	4067	6141	3044	2305
MLLT6	2751	2219	2066	2540	1994	2454	2039
MTUS1	104	189	973	413	1108	830	468
MXD4	3525	2990	3514	4512	4516	4196	3890
NBR1	7166	6298	5988	7391	6710	6946	6263
NDFIP1	3940	3680	3915	3600	4510	3881	3462
NET1	949	1295	984	897	995	836	701
NFIA	830	665	1007	505	733	699	296
NID2	8622	6752	5716	6441	3451	7525	4280
NLGN2	2793	2214	1909	2433	2351	2553	1911
NME1	259	255	271	188	335	209	252
NOD1	468	472	377	305	341	366	364
NPC2	2604	2467	2632	2563	4318	3308	2835
NPNT	15	11	28	12	34	18	58
NREP	21440	15863	16808	20512	12755	12377	9578
NUDT14	97	73	66	73	153	92	77
OSBPL9	2613	2186	1606	1758	1883	1734	2301
PAIP2	1830	1746	1613	1592	1691	1993	1389
PARD6B	13	6	3	5	8	11	8
PCNA	2601	2241	2434	2433	2269	1978	1643
PDGFRA	11001	10058	5355	11214	9291	12912	7136
PIK3R1	3256	3124	2195	3090	3201	3883	2313
PLAT	3930	1814	856	1536	1163	1269	1133
PLXNB2	27065	23876	21122	22519	21665	22295	25052
PNRC1	2056	1578	2181	2043	1979	2304	1409
POLR2A	11824	10309	9220	10051	9828	10976	9814
PRELID3A	206	158	226	189	219	196	251
PSME2	1173	825	838	917	885	854	758
PTPMT1	147	106	111	149	141	143	120
PTPN13	8033	6800	7670	8287	6376	8310	5923
RASL11A	88	46	20	50	30	21	48
RGS10	481	403	380	443	391	437	380
RNF11	5047	5178	5923	5685	6512	5619	5916
RSRP1	961	873	886	1181	1104	864	995

S100PBP	1142	1040	1072	1159	1081	1073	884
SCHIP1	18	13	12	18	28	12	23
SCP2	4167	4076	3119	3375	3733	3071	3319
SERINC3	10465	9937	9371	13140	10833	10974	9245
SESN1	616	507	755	709	675	615	744
SFRP2	688	924	8537	1782	37057	12251	10918
SH3BGRL	4673	4206	3354	4329	4087	3517	4424
SHROOM3	3839	2991	2073	2219	1858	1591	2376
SIKE1	1794	1612	1907	1529	1630	1654	1556
SLC12A9	958	986	790	842	890	970	893
SLC16A1	3524	3761	4050	2700	3968	4270	3800
SLC39A10	1489	1370	1910	1814	1662	1530	1332
SLC44A1	3067	4817	4780	6217	9289	7562	6197
SLC48A1	1114	955	773	1071	1145	1069	1041
SMARCA2	6011	5462	6465	6721	6692	10687	6091
SSX2IP	1432	1258	515	706	548	442	579
STARD4	939	683	910	837	658	664	436
STAT3	10661	8923	8965	8050	9912	10006	7951
STMN1	4470	3241	2345	4280	1927	2467	2177
STMN2	0	4	300	738	4522	424	187
SUPT6H	7373	6732	6372	6324	6713	6863	6184
SYNE2	1143	918	448	667	354	420	427
SYT11	3085	2373	2101	2941	2375	2249	2058
TBC1D2B	4206	3094	5280	3774	3854	3733	2859
TECR	1412	1463	1082	1435	1249	1287	1197
TGM2	9749	15158	2926	4896	5462	2319	4681
TIMP2	80732	83590	72183	78384	90357	70587	72137
TLCD3A	1068	1212	997	1308	1495	1223	906
TLE5	9836	9375	8699	8482	9191	9678	8351
TMBIM6	20674	20606	21490	21931	23452	23194	19953
TMEM132A	1396	1239	1096	889	1070	1545	1006
TMEM176B	9	5	52	757	107	353	513
TMEM59	5449	5588	6019	5956	8218	7592	7080
TNIP1	4383	3322	2855	4280	3075	3629	3123
TNRC6B	2176	1839	1894	1855	1943	2216	1974
TPI1	12701	9182	12771	12291	12255	20418	13300
TRIM24	655	683	545	702	653	561	518
TWSG1	5672	5512	5282	6424	5789	5919	4728
TXNDC12	350	362	354	271	361	284	277
UPF3B	396	362	379	406	396	383	380
USP25	2434	2019	2393	2677	2245	2468	2219
WARS1	16877	17560	16960	10970	16049	15060	13705
WBP2	3246	2762	2309	3419	2872	2839	2855
WWTR1	6069	6339	6607	5632	7659	7963	5583
XIAP	2133	2009	2240	2058	2316	2039	2061

ZFP36L1	10405	9137	17717	16264	14912	16527	14445
ZNF395	1364	894	896	1851	1031	2836	1286
ZNF780B	296	271	295	310	281	333	258

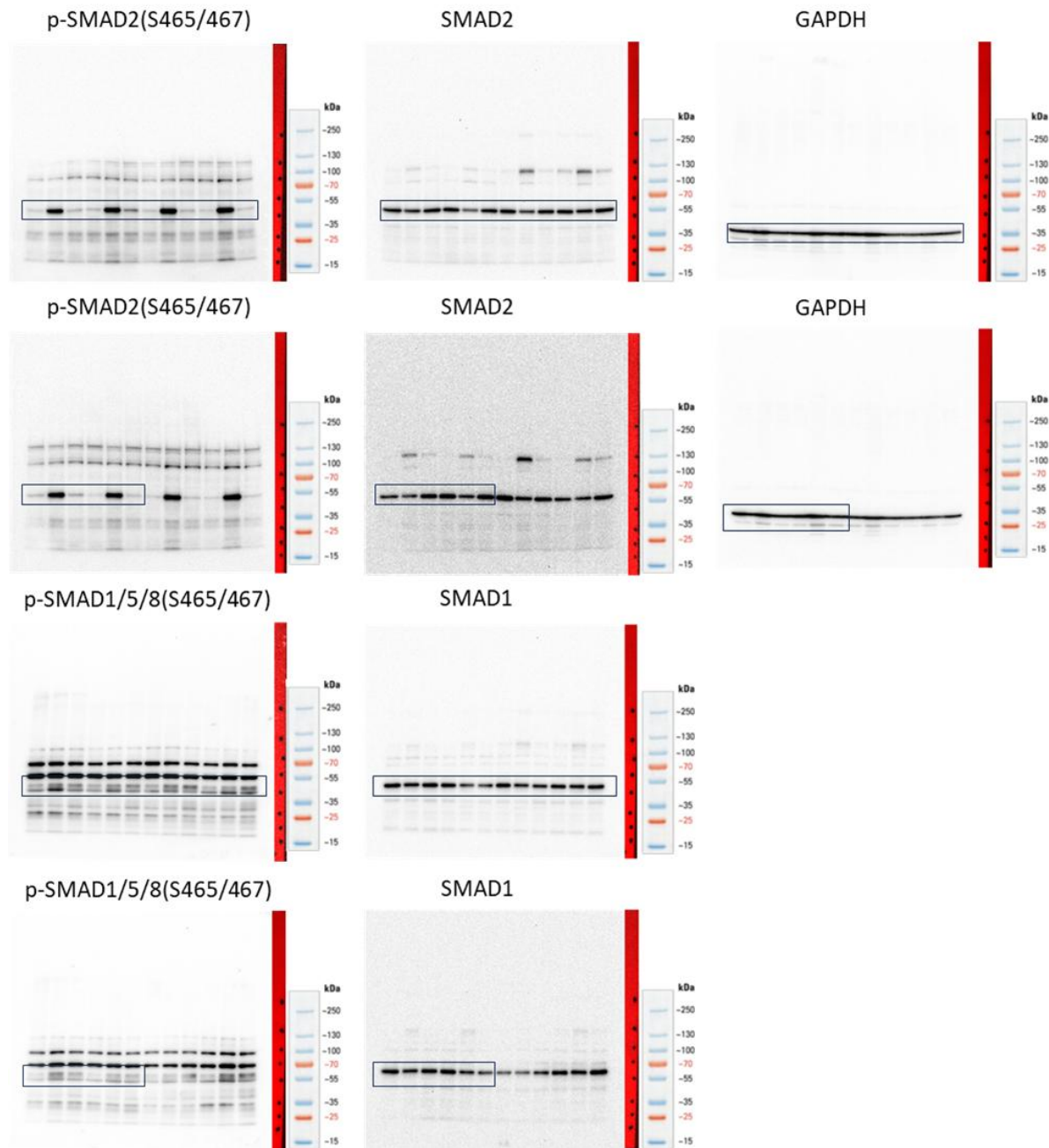


Figure S7- Exogenous TGF- β 1 strongly induces up-regulation of key proteins of the ECM: ADAMTSL2, FBN1 and fibronectin. Control and patient fibroblasts were treated with TGF- β 1 (20 ng/mL) and BMP2 (20 ng/mL) for 7 days. Proteins related to TGF- β and BMP2 pathways were determined in Total lysates by WB. Pathway activation was measured by p-SMAD2 (S465/467) and p-SMAD1/5/8 (S465/467), respectively; in addition to the ECM: ADAMTSL2, FBN1 and fibronectin. Representative images were selected from four independent experiments. GAPDH was used as loading control. Cropped blots were used in Figure 3A, to improve the clarity and conciseness of the figure presentation. Original uncropped blots are shown with a rectangle indicating the cropped area.

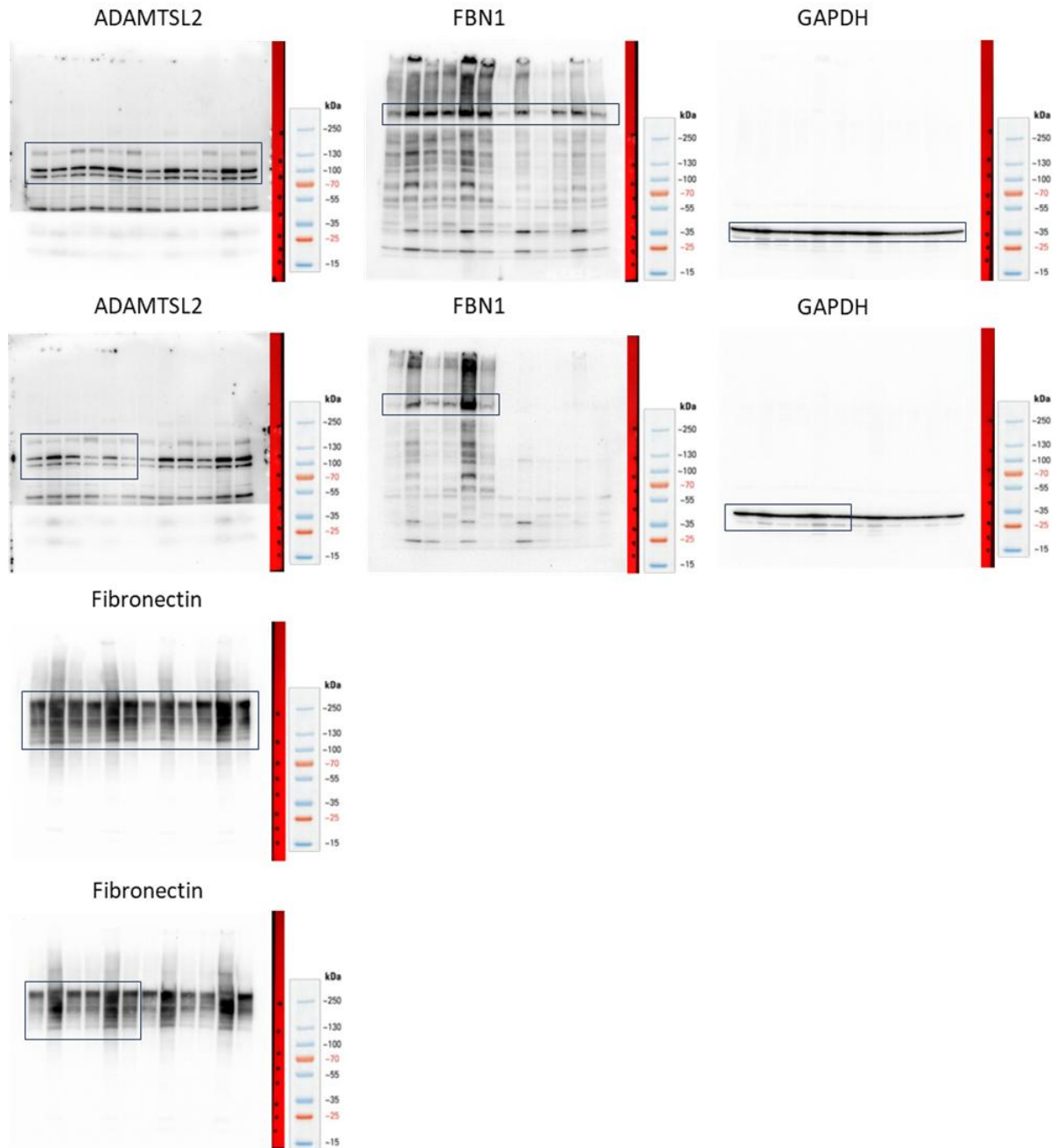


Figure S7 (cont.) Exogenous TGF- β 1 strongly induces up-regulation of key proteins of the ECM: ADAMTSL2, FBN1 and fibronectin. Control and patient fibroblasts were treated with TGF- β 1 (20 ng/mL) and BMP2 (20 ng/mL) for 7 days. Proteins related to TGF- β and BMP2 pathways were determined in Total lysates by WB. Pathway activation was measured by p-SMAD2 (S465/467) and p-SMAD1/5/8 (S465/467), respectively; in addition to the ECM: ADAMTSL2, FBN1 and fibronectin. Representative images were selected from four independent experiments. GAPDH was used as loading control. Cropped blots were used in Figure 3A, to improve the clarity and conciseness of the figure presentation. Original uncropped blots are shown with a rectangle indicating the cropped area.

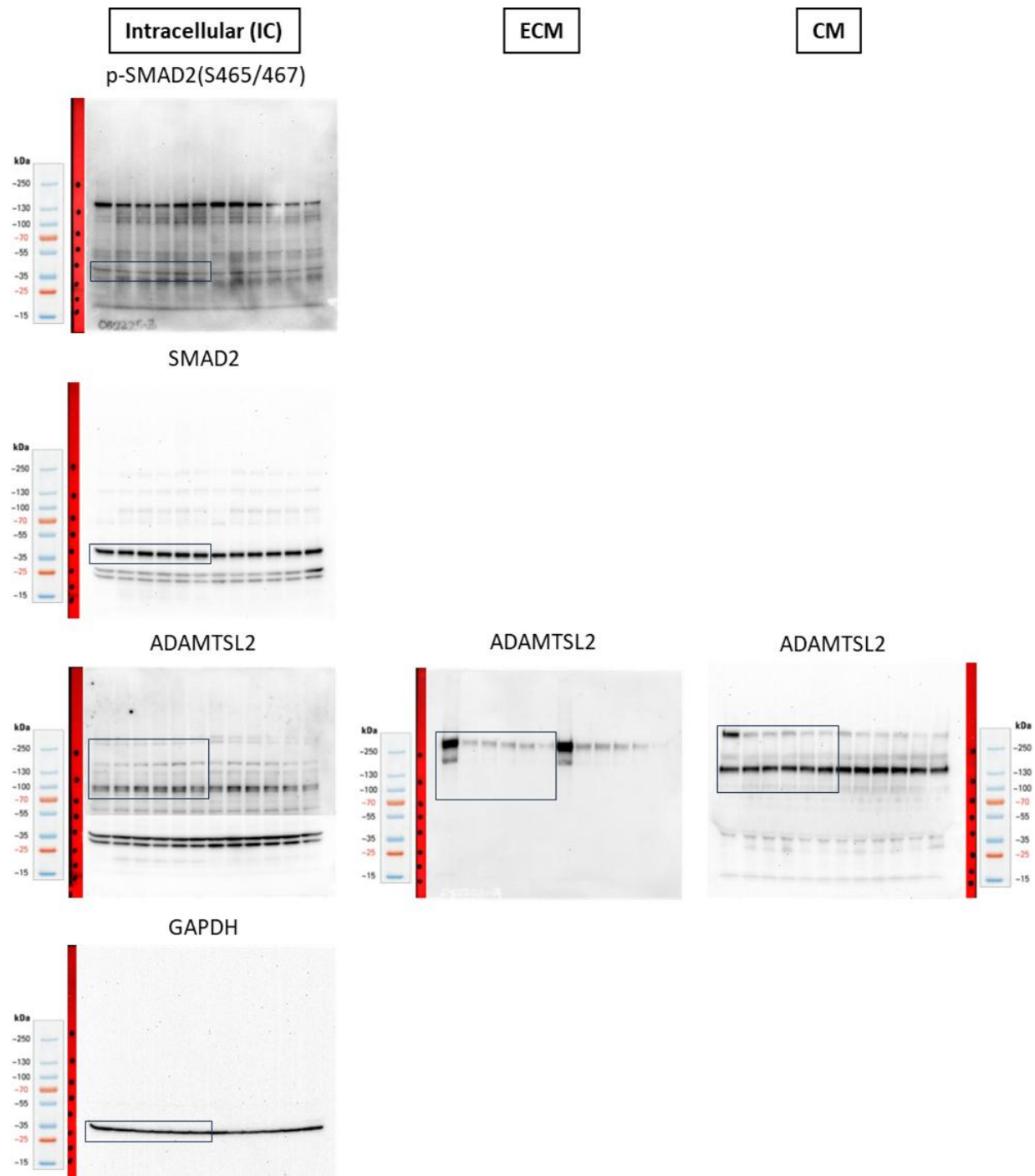


Figure S8- Losartan does not affect TGF- β 1 levels or ECM component in patient fibroblasts. Cells were treated with increasing concentration of losartan for 7 days. Intracellular lysates, ECM lysates as well as conditioned media (3 days) were used for WBs studies for ADAMTSL2, FBN1, fibronectin and Col1A1. GAPDH was used as loading control. Cropped blots were used in Figure 4B, to improve the clarity and conciseness of the figure presentation. Original uncropped blots are shown with a rectangle indicating the cropped area.

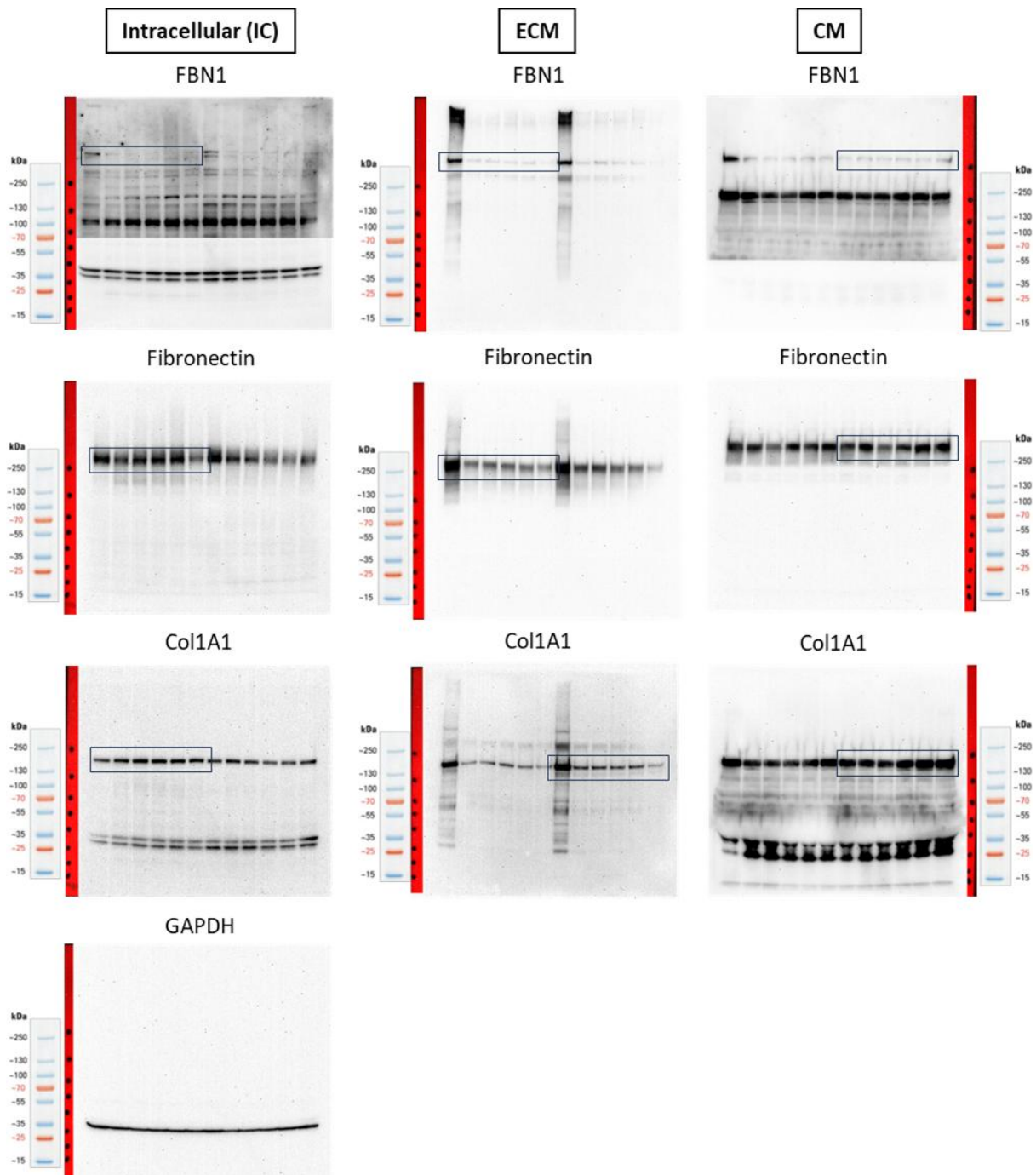


Figure S8 (cont.)- Losartan does not affect TGF- β 1 levels or ECM component in patient fibroblasts. Cells were treated with increasing concentration of losartan for 7 days. Intracellular lysates, ECM lysates as well as conditioned media (3 days) were used for WBs studies for ADAMTSL2, FBN1, fibronectin and Col1A1. GAPDH was used as loading control. Cropped blots were used in Figure 4B, to improve the clarity and conciseness of the figure presentation. Original uncropped blots are shown with a rectangle indicating the cropped area.

Table S4- Primary antibodies used in this study.

Antibody	Company	Catalog
p-SMAD2 (S465/467)	Cell Signaling Technology	#3108
SMAD2	Cell Signaling Technology	#5339
p-SMAD3 (S423/425)	Cell Signaling Technology	#9520
SMAD3	Cell Signaling Technology	#9523
SMAD4	Cell Signaling Technology	#38454
p-SMAD1/5/8 (S463/465)	Millipore-Sigma	AB3848-I
SMAD1	Cell Signaling Technology	#6944
ADAMTSL2	GeneTex	GTX102069
FBN1	Sigma-Millipore	PA5-99225
Fibronectin	Sigma-Millipore	F0916
Col1A1	Cell Signaling Technology	#72026
GAPDH	Cell Signaling Technology	#5174

