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Data Article

Data on the mechanobiological differences in the transcriptomes of human fetal and adult dermal fibroblasts in response to extracellular matrix rigidity

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ABSTRACT

Fetal skin is known to proceed through the wound healing process without the formation of scar tissue but rather via regeneration. Fetal dermal fibroblasts have emerged as a significant driving force in this regenerative response due to their unique phenotypic characteristics including our recent finding of an attenuated contractile response to extracellular matrix (ECM) rigidity that normally contributes to myofibroblast differentiation and scar formation. We provide data here that these mechanobiological differences in fetal dermal fibroblasts also extend to their genetic profile in which we found 353 differentially expressed genes when compared to adult dermal fibroblasts. These data are related to the research article entitled “The altered mechanical phenotype of fetal fibroblasts hinders myofibroblast differentiation” [1].

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Specifications Table

Subject	Cell biology, dermatology
Specific subject area	Mechanobiology of wound healing
Type of data	Table
How data were acquired	Figure High-throughput sequencing performed by the Vanderbilt Technologies for Advanced Genomics (VANTAGE) using an Illumina NovaSeq6000.
Data format	Raw
Parameters for data collection	Analyzed One strain of human adult and fetal dermal fibroblasts each used in duplicate plated overnight on fibronectin-conjugated polyacrylamide gels with mechanical properties that correspond to late-stage granulation tissue.
Description of data collection	Total RNA was extracted from the samples and library preparation and sequencing were performed by VANTAGE. Data analyses were performed in collaboration with the Vanderbilt Technologies for Advanced Genomics Analysis and Research Design (VANGARD).
Data source location	Vanderbilt University Medical Center Nashville, Tennessee United States of America 36.141739, -86.802132
Data accessibility	With the article
Related research article	Rachel J. Jerrell, Mitchell J. Leih, Aron Parekh The altered mechanical phenotype of fetal fibroblasts hinders myofibroblast differentiation Wound Repair and Regeneration 10.1111/wrr.12677

Value of the Data

- The data here reveal the differences in gene expression between human adult and fetal dermal fibroblasts in response to ECM rigidity which contributes to myofibroblast differentiation.
- The data may be of interest to researchers studying tissue repair and regeneration and the role of fibroblasts in adult and fetal wound healing.
- The data may provide the basis for future studies to uncover new mechanisms that limit myofibroblast differentiation in fetal fibroblasts that may be targeted in adult fibroblasts to inhibit this process and reduce scarring.

1. Data

Fetal dermal fibroblasts are characterized by a unique contractile phenotype that limits their biomechanical response to ECM rigidity and limits myofibroblast differentiation [1,2]. These results suggest that fetal dermal fibroblasts are defined by a unique genetic signature that promotes regeneration over scarring in fetal skin [2,3]. Therefore, RNA sequencing was performed on human fetal and adult dermal fibroblasts that had been seeded on rigid PAAs with mechanical properties that mimic late-stage granulation tissue to determine whether fetal fibroblasts were characterized by differences in gene expression. We identified a total of 353 genes of significance (FDR adjusted p-value < 0.05 and fold change > 2), 201 of which were upregulated and 152 were downregulated in fetal dermal fibroblasts (Fig. 1 and Table 1; full gene list can be found in Supplemental Table 1). Using WebGestalt and gene ontology (GO) analyses, the differentially expressed genes were organized into 124 known biological processes (Supplemental Table 2). Among the top 10 most significant groupings, several categories had complete overlap in the genes present in their lists. Processes that contained completely redundant gene lists were removed to bring a more diverse gene portfolio to the foreground (Fig. 2). The genes represented in this filtered list number 103 with 67 being upregulated and 35 downregulated in fetal dermal fibroblasts. Several categories represent known differences in fetal dermal fibroblasts such as ECM formation, cell adhesion, and responses to TGF- β 1 as well as myofibroblast differentiation while others have not been previously reported such as genes involved in nervous system development and the formation of ion channels (CACNA1H, NDNF, GPM6B, CACNA1G, OLFML2A, PENK, MAF, TNC, KCNMA1, ADRA2C).

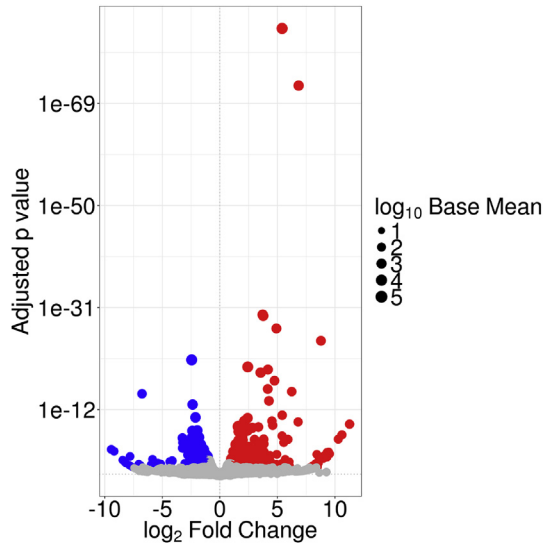


Fig. 1. Volcano plot showing the distribution of differentially regulated genes (FDR adjusted p-value < 0.05 and fold change > 2) between adult and fetal dermal fibroblasts where the points shown in blue are underexpressed and those in red are overexpressed in fetal fibroblasts.

2. Experimental design, materials, and methods

2.1. Cell culture

Primary human adult and fetal dermal fibroblasts (lots 12925 and 10111, respectively, from Scien-cell) were cultured in Dulbecco's modified Eagle's medium supplemented with 10% fetal bovine serum and used prior to passage 5 as previously described [1].

2.2. Rigid PAA

Fibronectin-conjugated rigid PAAs were synthesized and cast in activated 60 mm glass Petri dish lids in duplicate as previously described [1,4]. Briefly, these substrates were composed of a 12%/0.6% ratio of acrylamide/BIS-acrylamide, 0.1% N-hydroxysuccinimide ester, and 230 $\mu\text{g}/\text{ml}$ of fibronectin yielding an elastic modulus of 22,692 Pa which mimics late-stage granulation tissue [1,5].

2.3. RNA isolation

Total RNA was harvested from trypsinized fibroblasts after overnight incubation using the RNeasy Mini Kit (Qiagen) as per the manufacturer's instructions.

2.4. RNA-seq

DNase-treated total RNA quality was assessed using the 2100 Bioanalyzer (Agilent). Samples with a RNA integrity number greater than 7 were subjected to polyA (mRNA) enriched library prep using stranded mRNA sample kits with dual indexed adaptors (New England BioLabs). Library quality was assessed using the 2100 Bioanalyzer (Agilent) and libraries were quantitated using KAPA Library Quantification Kits (KAPA Biosystems). Pooled libraries were subjected to 150 bp paired-end sequencing according to the manufacturer's protocol (Illumina NovaSeq6000). Bcl2fastq2 Conversion Software (Illumina) was used to generate de-multiplexed Fastq files.

Table 1

The 353 genes that were differentially expressed between adult and fetal dermal fibroblasts and organized based on p-values from duplicate samples.

	Feature_ gene_ biotype	Feature_ gene_ name	Adult_ fib1	Adult_ fib2	Fetal_fib1	Fetal_ fib2	baseMean	log2FoldChange	lfcSE	stat	pvalue	padj	FoldChange
ENSG00000130600	processed_ transcript	H19	580	686	34753	12062	11939.9025046067	5.40744546221042	0.272053474734391	19.8764065318032	6.51E-88	1.10E-83	42.4427273846125
ENSG00000167244	protein_ coding	IGF2	35	26	4368	1661	1535.92396156943	6.84420217334409	0.368587300941476	18.5687411255409	5.75E-77	4.86E-73	114.897386604058
ENSG00000115461	protein_ coding	IGFBP5	355	426	4519	3423	2409.42790509528	3.7230106856081	0.305503850518108	12.1864607575132	3.67E-34	2.07E-30	13.2049843411863
ENSG00000157766	protein_ coding	ACAN	344	246	4730	2044	1872.7960882111	3.76574976156969	0.310558907503858	12.1257180862633	7.72E-34	3.26E-30	13.6020270567562
ENSG00000115457	protein_ coding	IGFBP2	45	49	1844	628	634.679420559682	4.91239869939689	0.421551745869203	11.6531333283129	2.21E-31	7.48E-28	30.1147567253153
ENSG00000147257	protein_ coding	GPC3	1	4	1421	495	478.751483277584	8.78289480334661	0.785712131870135	11.1782603921894	5.21E-29	1.47E-25	440.468428169782
ENSG00000187134	protein_ coding	AKR1C1	15945	17452	3330	1696	8580.87994956873	-2.44880780180127	0.23520035709285	-10.4115819893699	2.20E-25	5.30E-22	0.183162008844232
ENSG00000138829	protein_ coding	FBN2	2320	2599	14217	7383	6794.80101198621	2.42257907893781	0.239688059969616	10.1072163513064	5.13E-24	1.08E-20	5.36128592800274
ENSG00000065320	protein_ coding	NTN1	57	107	1683	783	678.000133841349	4.17522919447282	0.418192011176857	9.98400037036357	1.79E-23	3.36E-20	18.0663003608169
ENSG00000145423	protein_ coding	SFRP2	277	398	5540	1540	1856.74752694247	3.54632723226002	0.360257500889282	9.84386785425992	7.29E-23	1.23E-19	11.6829057027865
ENSG00000182870	protein_ coding	GALNT9	22	44	915	518	399.572582915745	4.7500403932568	0.501125505553367	9.47874402842773	2.57E-21	3.96E-18	26.9094387007394
ENSG00000143061	protein_ coding	IGSF3	53	57	1286	433	450.340358497523	4.15936559376057	0.457625136837542	9.08902343630909	9.99E-20	1.41E-16	17.8687349392357
ENSG00000175084	protein_ coding	DES	7	8	850	195	249.570464658704	6.24309876385249	0.696866823813241	8.95881185689164	3.28E-19	4.27E-16	75.746050629168
ENSG00000186417	protein_ coding	GLDN	533	660	10	0	260.97963868153	-6.75964375842138	0.764198112772096	-8.84540755263196	9.12E-19	1.10E-15	0.009228783729772
ENSG00000106484	protein_ coding	MEST	59	38	1303	370	426.393183802598	4.26582743309214	0.502333368989755	8.49202481132148	2.03E-17	2.29E-14	19.237206800382
ENSG00000151632	protein_ coding	AKR1C2	3253	3570	707	374	1769.1297758965	-2.36618279566862	0.285082205358044	-8.30000172300077	1.04E-16	1.10E-13	0.19395813668136
ENSG00000113296	protein_ coding	THBS4	17	5	432	303	209.473145771093	5.41625683809279	0.700434386024764	7.73271122343399	1.05E-14	1.05E-11	42.7027429771673
ENSG00000132386	protein_ coding	SERPINF1	3798	3818	1007	460	2035.40934737493	-2.1169510742622	0.278346130835184	-7.60546255092623	2.84E-14	2.67E-11	0.2305335973709
ENSG00000230202	pseudogene	RP11- 632C17__A.1	384	382	2281	1105	1054.17798112034	2.41580200628447	0.319398197210847	7.56360564142353	3.92E-14	3.49E-11	5.33616030029701
ENSG00000106819	protein_ coding	ASPN	22	17	485	251	203.501087440402	4.52400166249946	0.612268015579165	7.38892371867581	1.48E-13	1.25E-10	23.007011037822
ENSG00000182752	protein_ coding	PAPPA	2447	1592	8840	5382	4747.78573471342	2.13885853572378	0.289868498252942	7.37872017350911	1.60E-13	1.29E-10	4.40413452132315
ENSG00000176887	protein_ coding	SOX11	1	5	272	232	146.241147246419	6.79776221580786	0.927534253572193	7.32885302039012	2.32E-13	1.78E-10	111.257764737514
ENSG00000184674	protein_ coding	GSTT1	0	0	429	286	197.449531495011	11.2698050730994	1.56698087898104	7.19205015470759	6.38E-13	4.69E-10	2469.1607927716

ENSG00000181104	protein_coding	F2R	905	1273	5220	2436	2468	12311180694	2.0781328195298	0.290035209902459	7.16510529955551	7.77E-13	5.48E-10	4.22260360025078
ENSG00000157570	protein_coding	TSPAN18	15	18	428	223	178.851380889814	4.59092528282041	0.645444721192899	7.11280940424385	1.14E-12	7.69E-10	24.0993993258724	
ENSG00000105088	protein_coding	OLFM2	1015	1189	6403	2143	2596.79465242645	2.14682790717636	0.304100903120749	7.059590698827777	1.67E-12	1.09E-09	4.42835004631949	
ENSG00000115380	protein_coding	EFEMP1	2141	1703	10765	3574	4385.63414193485	2.08740916603663	0.296039750698497	7.05111107920965	1.77E-12	1.11E-09	4.24984188244344	
ENSG00000133110	protein_coding	POSTN	29782	31276	110463	47532	5392.6280131479	1.61649018774848	0.230172361214028	7.02295252895283	2.17E-12	1.31E-09	3.06628158085153	
ENSG00000162551	protein_coding	ALPL	68	66	774	364	326.068824433911	3.35116756598381	0.479490825763063	6.98901289852783	2.77E-12	1.61E-09	10.2047402326471	
ENSG00000136040	protein_coding	PLXNC1	293	586	4324	1191	1521.15489688503	2.80456218510363	0.404311027200323	6.93664529637986	4.02E-12	2.26E-09	6.98646266264566	
ENSG00000159167	protein_coding	STC1	4334	4874	1488	551	2512.37841684336	-1.96066947000647	0.289649674068327	-6.769106425937	1.30E-11	7.07E-09	0.256909212527594	
ENSG00000171951	protein_coding	SCC2	324	344	1559	1181	917.847260916319	2.41208323106124	0.357138963427877	6.7539066807768	1.44E-11	7.60E-09	5.32242321338145	
ENSG00000112655	protein_coding	HPCAL1	2583	2920	404	379	1423.6188666347	-2.39109251319292	0.354903669398456	-6.73730006017041	1.61E-11	8.27E-09	0.19063798155516	
ENSG00000130176	protein_coding	CNN1	595	435	2335	1468	1264.07608803328	2.21505964673745	0.330217857011582	6.70787360436343	1.97E-11	9.82E-09	4.64300761392445	
ENSG00000112655	protein_coding	PTK7	5655	5865	22326	8810	10409.6633423664	1.66024377365204	0.248427902352256	6.6830004115154	2.34E-11	1.13E-08	3.16069926891329	
ENSG00000131016	protein_coding	AKAP12	1408	1354	6917	2348	2901.203723656664	1.93983698082345	0.294954672557293	6.57672910893466	4.81E-11	2.26E-08	3.83662292867813	
ENSG00000134762	protein_coding	DSC3	0	0	412	107	124.256148958101	10.6050764235046	1.63990716315485	6.466876090017	1.00E-10	4.57E-08	1.55756474960092	
ENSG00000144668	protein_coding	ITGA9	6	6	306	126	113.034524637785	5.40582074179829	0.845687340906959	6.39222142783976	1.63E-10	7.27E-08	42.3949565465882	
ENSG00000146197	protein_coding	SCUBE3	1222	1085	3754	3009	2426.51433183622	1.94056486446696	0.308059368835241	6.29932104257746	2.99E-10	1.30E-07	3.83855911033481	
ENSG00000143819	protein_coding	EPHX1	4389	4733	1187	844	2547.88808796195	-1.80713887496561	0.287321768740939	-6.2895995764073	3.18E-10	1.35E-07	0.285757075327469	
ENSG00000108448	protein_coding	TRIM16L	1190	1430	308	107	672.221574331068	-2.45272862231414	0.39129556157832	-6.26822500213978	3.65E-10	1.51E-07	0.182664904209718	
ENSG00000163814	protein_coding	CDCP1	657	579	85	28	296.53312904737	-3.24968185870523	0.521030767349462	-6.23702487904256	4.46E-10	1.80E-07	0.105135233640025	
ENSG00000046653	protein_coding	CPMB8	39	22	451	245	199.145046615439	3.80791955986275	0.618736276211728	6.1543499908832	7.54E-10	2.93E-07	14.0054807012925	
ENSG00000185274	protein_coding	WBSCR17	0	0	314	94	99.5545862547558	10.2849615105207	1.6716344486318	6.1526379280702	7.62E-10	2.93E-07	1247.61882449393	
ENSG00000178882	protein_coding	FAM101A	10	0	286	190	133.558535192079	5.91206287939312	0.964085017114579	6.1323044902071	8.66E-10	3.25E-07	60.2154952964256	
ENSG00000185585	protein_coding	OLFM2A	101	75	927	317	347.569518015835	3.0166266455513	0.493454045343892	6.11328769922028	9.76E-10	3.59E-07	8.09273046165066	
ENSG00000163710	protein_coding	PCOLCE2	1034	986	219	77	512.749678875953	-2.56237208810632	0.419649923538134	-6.10597534845844	1.02E-09	3.68E-07	0.16929695268955	
ENSG00000211445	protein_coding	GPX3	4372	4650	516	699	2335.29419869285	-2.38642753985069	0.391295944181652	-6.09877913465628	1.07E-09	3.76E-07	0.19125540962581	
ENSG00000124343	protein_coding	XC	1821	1755	500	143	932.789685436754	-2.30984610195977	0.739572889114114	-6.08558219721309	1.16E-09	4.01E-07	0.201681952877233	

(continued on next page)

Table 1 (continued)

Feature_ gene_ biotype	Feature_ name	Adult_ fb1	Adult_ fb2	Fetal_ fb1	Fetal_ fb2	baseMean	log2FoldChange	lfcSE	stat	pvalue	padj	FoldChange
ENSG00000099864	protein_coding	643	465	2435	1200	1196.59046527945	1.98815767958452	0.328251485384602	6.05681242983664	1.39E-09	4.61E-07	3.96730050599884
ENSG00000116852	protein_coding	105	20	860	522	403.070977469424	3.78502231695109	0.6248935395027521	6.05666177186908	1.39E-09	4.61E-07	13.7849517922211
ENSG00000122176	protein_coding	1905	2138	7725	3024	3604.51292765322	1.65332868579896	0.271002506611307	6.03436798002015	1.60E-09	5.19E-07	3.10658318488546
ENSG00000249992	protein_coding	1312	1216	301	152	668.823628707979	-2.19941581752932	0.366232339512804	-6.00551960036387	1.91E-09	6.08E-07	0.217725785466985
ENSG00000128274	protein_coding	2134	1901	576	314	1114.60916602277	-1.88307237300615	0.317178208128496	-5.92686325438713	3.09E-09	9.67E-07	0.271105751810242
ENSG00000186847	protein_coding	3	6	216	124	93.5868669028884	5.55161152137162	0.943987932225103	5.88101958918663	4.08E-09	1.24E-06	46.9031047950284
ENSG00000196139	protein_coding	1381	1242	62	131	633.448141560841	-3.18452536020149	0.541595815146282	-5.87989284839908	4.11E-09	1.24E-06	0.109992315486315
ENSG00000173376	protein_coding	19	32	340	229	168.45757635364	3.82925695968196	0.663020294018327	5.77547473920326	7.67E-09	2.28E-06	14.2141602045998
ENSG00000110031	protein_coding	2904	2931	1057	491	1670.63321572263	-1.65155628326824	0.287468712350892	-5.74516882119786	9.18E-09	2.88E-06	0.318296614591614
ENSG00000103241	protein_coding	687	649	81	64	331.436438502657	-2.82885738254322	0.4693363759621042	-5.73381673740304	9.82E-09	2.78E-06	0.140743735785671
ENSG00000232679	lincRNA	480	586	53	41	258.019828138902	-3.13450806292315	0.546716340156565	-5.73333524662079	9.85E-09	2.78E-06	0.118372551388646
ENSG000000041982	protein_coding	11675	11445	28592	19595	18390.1283517491	1.4121884154139	0.246811148480984	5.72173673719868	1.05E-08	2.92E-06	2.6614056380117
ENSG00000122378	protein_coding	22	68	630	263	248.2394979549338	3.55323165084792	0.628091620285808	5.65718684358669	1.54E-08	4.20E-06	11.738951503535
ENSG00000206633	protein_coding	271	270	1210	661	617.634823159749	2.08913697379608	0.372814817319178	5.60368546727453	2.10E-08	5.63E-06	4.25493464865875
ENSG00000079931	protein_coding	2073	2182	487	384	1171.40653174007	-1.90608873723831	0.341010324163576	-5.58953381224903	2.28E-08	6.02E-06	0.266814922761925
ENSG00000136999	protein_coding	916	877	2963	1519	1575.35170364763	1.60610362032145	0.288813744475356	5.6103596537283	2.68E-08	6.98E-06	3.0442854069886
ENSG00000145934	protein_coding	190	111	893	515	445.175923004593	2.53524126232802	0.456270091123441	5.55644849761174	2.75E-08	7.05E-06	5.79673792740509
ENSG00000076716	protein_coding	374	244	1796	653	748.810857521471	2.19358990351402	0.396108410251215	5.53785238269198	3.06E-08	7.73E-06	4.57442339509487
ENSG000000077420	protein_coding	1545	1633	55	169	767.118268757301	-3.18140108826145	0.580802651155138	-5.47759395025845	4.31E-08	1.07E-05	0.110230770780254
ENSG00000106537	protein_coding	2550	3517	1118	352	1677.8133185138	-1.86269819289255	0.341496179124163	-5.45452132925708	4.91E-08	1.20E-05	0.274961552374371
ENSG00000138678	protein_coding	440	419	40	31	206.719959100743	-3.23008564793329	0.594773652412835	-5.43078133140181	5.61E-08	1.36E-05	0.106573034401981
ENSG00000153714	protein_coding	699	909	183	53	406.338394981452	-2.59459065694425	0.479124810388847	-5.41527092875982	6.12E-08	1.46E-05	0.165558081755723
ENSG00000138207	protein_coding	57	47	372	332	226.568648144279	3.17145500101225	0.58667487475667	5.40581357319528	6.45E-08	1.52E-05	9.00954669689626
ENSG00000050767	protein_coding	42	36	325	279	190.8363330382493	3.35652505865551	0.623990288278973	5.37913028728882	7.48E-08	1.73E-05	10.2427063950326

ENSG00000175274	protein_coding	TP5311	340	232	1790	560	701.329207482301	2.21499880768242	0.413691552908674	5.35422778664131	8.59E-08	1.96E-05	4.64281182047417
ENSG00000221852	protein_coding	KRTAP1-5	243	83	0	0	71.0255174664217	-9.43207293666675	1.77423129505829	-5.31614864416922	1.08E-07	2.38E-05	0.001447644128364
ENSG00000170801	protein_coding	HTRA3	4758	4587	1835	1035	2801.294925650889	-1.39701134313731	0.26285855885639954	-5.3147424861198	1.07E-07	2.38E-05	0.379714936947009
ENSG00000137033	protein_coding	IL33	735	872	196	75	417.399366591493	-2.34257584715237	0.4444307513572403	-5.27242005951499	1.35E-07	2.96E-05	0.197157999515064
ENSG00000069431	protein_coding	ABCC9	2391	2889	432	494	1425.41085855136	-2.04297109917552	0.388027901628894	-5.26501081648946	1.40E-07	3.04E-05	0.242663478555898
ENSG00000145681	protein_coding	HAPLN1	45	55	474	218	201.662108358811	3.05171525404272	0.58259192011329	5.23816954661728	1.62E-07	3.47E-05	8.29197205300505
ENSG0000006283	protein_coding	CACNA1G	17	35	405	156	153.22932169548	3.65548866464176	0.701307944197867	5.21238736119379	1.86E-07	3.94E-05	12.6011951352757
ENSG00000242265	protein_coding	PEG10	766	731	2656	1158	1308.80026754693	1.59711017934492	0.306638771474658	5.20844174617663	1.90E-07	3.98E-05	3.0253670324485
ENSG00000180818	protein_coding	HOXC10	1175	1003	108	151	553.841682907011	-2.56887292779243	0.469387866198544	-5.20142521943611	1.98E-07	4.08E-05	0.168535810404164
ENSG0000006016	protein_coding	CR1F1	12682	12317	2402	2835	7017.2901563462	-1.77649801485169	0.343360665305394	-5.17385418411843	2.29E-07	4.67E-05	0.291891071165803
ENSG00000177757	lincRNA	FAM87B	135	140	0	0	59.7290593891123	-9.18222650375534	1.78225901885593	-5.15201573206213	2.58E-07	5.19E-05	0.001721370656247
ENSG00000242221	protein_coding	PSG2	108	108	788	284	315.51101158269	2.51873184510457	0.492450759890675	5.11468770129167	3.14E-07	6.25E-05	5.73078131752906
ENSG00000135919	protein_coding	SERPINE2	82601	85914	21221	21199	49116.8988654404	-1.54821001126054	0.302821968944287	-5.11260796783661	3.18E-07	6.25E-05	0.341934047453351
ENSG00000132205	protein_coding	EMILIN2	5591	5361	13464	7112	7849.45504298239	1.20101658383477	0.235123657181485	5.10802102277608	3.26E-07	6.33E-05	2.29901612319588
ENSG00000163017	protein_coding	ACTG2	42	10	477	169	172.788202608913	3.83382202606078	0.75208420879606	5.09759676007289	3.44E-07	6.58E-05	14.259208794205
ENSG00000106538	protein_coding	RARRS2	2015	1935	577	396	1128.11316513684	-1.67108416545789	0.327907825498087	-5.09620093061058	3.47E-07	6.58E-05	0.314017275282028
ENSG00000112562	protein_coding	SMO2	0	0	220	30	55.7707530097559	9.4511426911621	1.85892983273661	5.08418474152338	3.69E-07	6.94E-05	699.966802870941
ENSG00000198759	protein_coding	EGFL6	0	0	153	51	50.5354385397077	9.30647644538886	1.843280488655993	5.04886613982156	4.44E-07	8.26E-05	633.182005384138
ENSG00000182667	protein_coding	NTM	168	193	628	798	513.316508031542	2.47642772827127	0.491452785076843	5.0389941892059	4.68E-07	8.60E-05	5.5651759859086
ENSG00000049540	protein_coding	ELN	23416	20483	48095	35398	32975.7296731919	1.29666014723917	0.258111567339334	5.02364214283538	5.07E-07	9.22E-05	2.45659519754925
ENSG00000198542	protein_coding	ITGB1	6974	7371	1558	1684	4084.18195985019	-1.68720639075454	0.337591011209241	-4.977823304922	5.80E-07	0.000104314074674	0.310527643441531
ENSG00000078596	protein_coding	ITM2A	49	21	763	107	208.817487634063	3.67772888506509	0.739106502274637	4.97591196092403	6.49E-07	0.000115581593654	12.7969569905234
ENSG00000130558	protein_coding	OLFML1	921	1056	279	144	541.303125641501	-1.93798289908628	0.392557239886132	-4.93681609247209	7.94E-07	0.000139857846232	0.260981075363257
ENSG00000171551	protein_coding	ECEL1	0	0	20	143	59.758898368686	9.54165503823767	1.94231850562384	4.91250822695173	8.99E-07	0.000156736478464	745.2887328484536
ENSG00000182272	protein_coding	B4GALNT4	12	23	309	120	116.277817848258	3.84113489086494	0.782366776166176	4.90963446797627	9.12E-07	0.000157427824689	14.3316706588778
ENSG00000188783	protein_coding	PREP	60	71	606	197	226.651951950513	2.80295823072502	0.572077068375642	4.89961647769549	9.60E-07	0.000163997199664	6.97869595414965

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Table 1 (continued)

Feature_ gene_ biotype	Feature_ name	Adult_ fb1	Adult_ fb2	Fetal_ fb1	Fetal_ fb2	baseMean	log2FoldChange	lfcSE	stat	pvalue	padj	FoldChange
ENSG00000100364	protein_coding	5362	5590	2437	1333	3386.62742456987	-1.23904097669417	0.2545657317569899	-4.8677746033396	1.13E-06	0.000191307470315	0.423651603013531
ENSG00000198910	protein_coding	87	33	1032	146	289.80912473319	3.337492222325491	0.686233278024519	4.86349515555795	1.15E-06	0.000193070693653	10.1084663449944
ENSG00000156218	protein_coding	8	3	134	121	76.4162935667246	4.94797506760331	1.01899674746081	4.85573254275145	1.20E-06	0.000198610975648	30.8666213079612
ENSG00000141540	protein_coding	11	38	375	158	147.3353481795959	3.68815970839729	0.759817086394377	4.85400996429156	1.21E-06	0.000198610975648	12.8898154987493
ENSG00000138435	protein_coding	0	1	265	55	74.7487654759877	8.42671136608136	1.73764744918618	4.84949428034323	1.24E-06	0.000201232250217	344.106507676711
ENSG00000129038	protein_coding	2714	1941	6060	3540	3606.39399628472	1.3576621664761	0.281036963306231	4.83090249234163	1.36E-06	0.000218862882877	2.5626956758227
ENSG00000118729	protein_coding	0	0	65	83	45.3816374568754	9.14602473559613	1.90201679111543	4.80859305675871	1.52E-06	0.00024078171368	566.536358197389
ENSG00000147889	protein_coding	557	418	55	52	243.266056848938	-2.77556265906086	0.57726898088742	-4.80809485816635	1.52E-06	0.00024078171368	0.146040188479229
ENSG00000164694	protein_coding	203	405	1434	647	671.337752687265	2.03361042092696	0.424184255502973	4.79416761594705	1.63E-06	0.0002557396091252	4.09428185042058
ENSG00000099875	protein_coding	11140	14638	6482	2711	7950.43354221148	-1.24768526590118	0.2604336639936353	-4.790743983665655	1.66E-06	0.000257752429625	0.421123337810201
ENSG00000108551	protein_coding	4837	5133	1961	1268	3052.52377160804	-1.28819715976846	0.2696398134087	-4.77747385849101	1.78E-06	0.00027285072722	0.409462387674217
ENSG00000107984	protein_coding	1260	1225	384	224	704.101579797298	-1.71818679863465	0.359993058715117	-4.77283313396982	1.82E-06	0.000276700624079	0.3039304065651361
ENSG00000163827	protein_coding	472	779	130	65	322.722904868268	-2.40090604348922	0.503829460978224	-4.76370722511789	1.90E-06	0.000286935137018	0.189451958146355
ENSG00000167641	protein_coding	114	104	464	441	312.2593330390911	2.48105498960856	0.522451274183633	4.74887345903288	2.05E-06	0.0003030404104265	5.58305585558791
ENSG00000136205	protein_coding	5052	5358	1802	1342	3145.08452661279	-1.35583388523217	0.2885507222597198	-4.748860196559483	2.05E-06	0.0003030404104265	0.390708924496642
ENSG00000196557	protein_coding	28	2	251	217	141.438879407647	4.36368448541055	0.923818207233136	4.72353159013819	2.32E-06	0.000340782850521	20.5873295056645
ENSG00000156453	protein_coding	30	39	346	163	147.8431191566666	3.14952703470705	0.668142540296923	4.71385490719197	2.43E-06	0.000354300983377	8.87364621174558
ENSG00000085662	protein_coding	10656	10477	4692	2878	6652.809377498987	-1.1550572927312	0.2452904180605085	-4.70893768228942	2.49E-06	0.000359853082155	0.4490483534715
ENSG00000189223	processed_transcript	22	7	234	138	107.0012294939209	3.99415113265159	0.850452347556013	4.69650197818817	2.65E-06	0.00037921874738	15.9352652953939
ENSG00000215808	lincRNA	0	0	145	33	41.9140792928261	9.03801049755262	1.92759012146035	4.68876157691937	2.75E-06	0.000390537016115	525.668872344898
ENSG00000118785	protein_coding	542	730	2737	860	1159.67539783631	1.679662661655243	0.3618466355059739	4.6418226770728	3.45E-06	0.00048659699469	3.2034503190527
ENSG00000231298	lincRNA	134	141	1	0	59.926753114722	-7.80264797683675	1.68170271507771	-4.63973085544802	3.49E-06	0.000487485905712	0.004478874704911
ENSG00000105825	protein_coding	15661	17432	8074	4534	10571.3675616265	-1.08609959139426	0.2334945821948866	-4.62276614406297	3.79E-06	0.000524780695706	0.471033119710017
ENSG00000176658	protein_coding	4949	6069	1239	1366	3172.64452243439	-1.61727373865177	0.351242018130762	-4.60444266394599	4.14E-06	0.00056851010567	0.325595083278246
ENSG00000231690	lincRNA	0	0	10	126	5112.76368433917	9.3165155070634	2.03699235368415	4.57381700321937	4.79E-06	0.000653028101279	637.603397708042

ENSG00000135744	protein_coding	ACT	391	461	85	34	215.263934928879	-2.60395057258092	0.570465470144337	-4.564606814715885	5.00E-06	0.00067690346952	0.164847450650486
ENSG00000117600	protein_coding	LPPR4	52	49	300	252	180.293346040684	2.84899867096107	0.6273555496205734	4.53983542202469	5.63E-06	0.000751936454315	7.20500120139217
ENSG00000130595	protein_coding	TNNT3	0	0	97	46	37.3670991444786	8.8694920802772	1.953995569515696	4.53915640769349	5.65E-06	0.000751936454315	4.67717007616894
ENSG00000254851	protein_coding	RP11-109L13.1	4	23	405	75	116.217608401547	4.24238031622649	0.935557846463952	4.53449984045755	5.77E-06	0.000762711236807	18.9270848120509
ENSG00000101134	protein_coding	DKF5	282	194	953	506	491.712878381409	1.90692510540068	0.421957441087902	4.51923563780318	6.21E-06	0.000813462092128	3.75008970244213
ENSG00000197635	protein_coding	DPP4	6031	6905	1732	1712	3823.26271085692	-1.47092392805058	0.325827835396142	-4.51442071013432	6.35E-06	0.000825761616251	0.360751193284236
ENSG00000154736	protein_coding	ADAMT55	1671	1302	450	310	857.298547918161	-1.61777806443315	0.3361803673723488	-4.47142520081086	7.77E-06	0.001002864291961	0.325836908284569
ENSG00000128342	protein_coding	LIF	3089	1965	9371	2940	4122.92547769807	1.46010189628471	0.326878509463985	4.4668029681088	7.94E-06	0.001017005849988	2.75127794976453
ENSG00000168528	protein_coding	SERINC2	2688	2702	840	678	1603.42036842474	-1.4390808140492	0.324315761994687	-4.4372829898064	9.11E-06	0.0011581533386801	0.366880204856585
ENSG00000265185	lincRNA	SNORD38-1	0	0	30	85	391.495347239591	8.93128086158865	2.01405988274659	4.43446639203559	9.23E-06	0.001164640912789	4.88183884803662
ENSG00000162722	protein_coding	TRIM58	0	0	20	96	41.4347732575353	9.01283168623109	2.03381512087835	4.43149015547622	9.36E-06	0.001172088691306	5.16574166260376
ENSG00000122862	protein_coding	SRCN	536	584	150	57	295.497293714046	-2.21191543644897	0.500701891087852	-4.41762948337031	9.98E-06	0.001240615686884	0.21584754117363
ENSG00000139629	protein_coding	CALNT6	945	876	322	119	506.554177362235	-1.83017370139344	0.414584751762302	-4.41447422659373	1.01E-05	0.001249658899488	0.28123075872869
ENSG00000184371	protein_coding	CSFI	6837	7594	3889	1715	4581.46236467858	-1.11359071355991	0.25281484447766	-4.40476790696645	1.06E-05	0.001297470844	0.462142375515979
ENSG00000188517	protein_coding	COL25A1	0	0	60	59	35.0229441424915	8.77301411428947	1.99614150604159	4.39498607074537	1.11E-05	0.001347529368974	437.462067128478
ENSG00000140557	protein_coding	STSS1A2	33	12	264	146	119.613853713249	3.48594780094514	0.793778778319022	4.3915860390313	1.13E-05	0.001359002113001	11.2040451791724
ENSG00000197632	protein_coding	SERPINE2	1222	1229	3044	1646	1783.96359719642	1.2330085636666	0.28119135790137	4.38494473254432	1.16E-05	0.001391195394747	2.35056660948265
ENSG00000149257	protein_coding	SERPINH1	22907	18867	48205	22916	27671.21727901	1.03399450616679	0.23628305526086	4.37608403626425	1.21E-05	0.001433648225319	2.04768600318207
ENSG00000340353	protein_coding	APBA2	26	32	286	139	124.080340628599	3.14663799305921	0.719178002282805	4.37532569554574	1.21E-05	0.001433648225319	8.85589423984818
ENSG00000138772	protein_coding	ANXA3	56	41	304	220	167.765687598222	2.79645194827798	0.641926005443432	4.35634626262804	1.32E-05	0.001552853169385	6.94729783684497
ENSG00000113657	protein_coding	DPS1L3	2899	2520	876	691	1622.52006053274	-1.40686662680341	0.324140334755357	-4.34030102383041	1.42E-05	0.00164618006323	0.37712988218258
ENSG00000184058	protein_coding	TBX1	140	108	4	0	54.71493882251422	-5.84724775991407	1.34740243052005	-4.33964465809762	1.43E-05	0.00164618006323	0.017370128536899
ENSG00000153707	protein_coding	PTRD	0	5	151	64	56.2826270877964	5.6736140677672	1.30758016035894	4.33901816482881	1.43E-05	0.00164618006323	51.0420393756655
ENSG00000198682	protein_coding	PAI3S2	5645	6985	2727	1740	3966.43038899446	-1.163343231175256	0.268812152458422	-4.3277147298335	1.51E-05	0.00172123934518	0.446476976931919
ENSG00000103742	protein_coding	IGDCC4	138	73	595	290	278.184759123183	2.3390005232727	0.5420001336889808	4.31549805596789	1.59E-05	0.001807039135198	5.05952000452861
ENSG00000145948	protein_coding	HMGA2	402	328	1648	509	687.27338028973	1.73786400579657	0.403534042153695	4.30661065550121	1.66E-05	0.001863307687463	3.35540875142027

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Table 1 (continued)

Feature_ gene_ biotype	Feature_ name	Adult_ fb1	Adult_ fb2	Fetal_ fb1	Fetal_ fb2	baseMean	log2FoldChange	lfcSE	stat	pvalue	padj	FoldChange
ENSG00000138944	protein_coding	954	952	94	166	491.5762338481689	-2.32173707417588	0.539521214666603	-4.30331686436744	1.68E-05	0.001863307687463	0.200027360624294
ENSG00000158457	protein_coding	0	0	60	54	33.07356912872336	8.69071506386409	2.01956636165901	4.30325798094841	1.68E-05	0.001863307687463	413.205332926564
ENSG00000125170	protein_coding	2197	2524	1072	532	1447.24265643348	-1.27954138480272	0.297370230049666	-4.302856535750768	1.69E-05	0.001863307687463	0.411926434194994
ENSG00000145632	protein_coding	4181	6270	2640	1030	3197.875409597686	-1.28410991427807	0.301029079749232	-4.265733780099785	1.99E-05	0.002175492798376	0.4106524065062284
ENSG00000163520	protein_coding	31720	31259	7720	9089	18771.1356320787	-1.42676806993928	0.334488299748324	-4.2655245986275	1.99E-05	0.002175492798376	0.371963233232006
ENSG00000155511	protein_coding	25	21	139	214	121.277761461572	3.47248773074219	0.814537096868609	4.26314297502255	2.02E-05	0.002184724427131	11.09999996866988
ENSG00000181031	protein_coding	105	59	0	0	35.6850156485619	-8.43907035999699	1.98413222444487	-4.25328022801409	2.11E-05	0.002268705546732	0.002881288103747
ENSG00000119630	protein_coding	2018	2218	6089	2270	3024.76036646847	1.19475681582342	0.281206680261254	4.24867863990086	2.15E-05	0.002300232220335	2.28906243875689
ENSG00000164687	protein_coding	263	172	944	412	444.3595020653028	1.88700393073691	0.4444277521435181	4.2473540516774	2.16E-05	0.002300232220335	3.69866318974189
ENSG00000125848	protein_coding	29	15	142	210	119.8986060771148	3.52264579860044	0.833992831600508	4.22383222627965	2.40E-05	0.002538132561728	11.4926994507697
ENSG00000083799	protein_coding	2394	2982	1304	579	1653.97969465271	-1.259993643422789	0.298835880762593	-4.21614844613934	2.49E-05	0.002609820236582	0.417562357259338
ENSG00000064309	protein_coding	100	106	457	298	252.477027564943	2.21391941501682	0.525950620400866	4.209367437016143	2.56E-05	0.002672728572974	4.639933947002153
ENSG00000152268	processed_transcript	215	208	607	622	456.001393399539	1.98396524550204	0.471625545577089	4.20665348624072	2.59E-05	0.002684201443782	3.9557883695042
ENSG00000129116	protein_coding	2746	2642	6270	3046	3614.20485191466	1.06201020476378	0.25252105296316	4.20563035161553	2.60E-05	0.002684201443782	2.0878386291569
ENSG00000146122	protein_coding	360	269	1275	485	581.2732714304	1.70191638511374	0.405471446486276	4.19737665836193	2.70E-05	0.002767016052405	3.2533282325449
ENSG00000136842	protein_coding	76	80	0	0	33.8811275521891	-8.36427010582106	1.9967552701832	-4.18893102761343	2.80E-05	0.002854717992299	0.003034616440237
ENSG00000151468	protein_coding	24	22	394	71	116.609346809662	3.41920207649331	0.81752789384678	4.18236747911397	2.88E-05	0.0029208223358828	10.697502244092
ENSG00000182326	protein_coding	8465	9584	3702	2699	5713.06152758118	-1.12816574949171	0.270301414697049	-4.17373231566747	3.00E-05	0.003015761264088	0.457497019764162
ENSG00000140297	protein_coding	248	319	33	0	129.68137464763	-4.14462620357077	0.996999319595784	-4.15710033307859	3.22E-05	0.003224650346581	0.056538358659087
ENSG00000244567	lincRNA	95	58	0	0	33.283686223241	-8.3385706932343	2.01342769442742	-4.14148008210726	3.45E-05	0.003432043954918	0.003089157849247
ENSG00000175928	protein_coding	21	1	363	70	104.81948295904	4.38315082812273	0.6717072541208	4.12839868156727	3.65E-05	0.00361196742445	20.8669932126131
ENSG00000259785	pseudogene	0	0	55	48	297326258638784	8.53719251831144	2.06115695237976	4.12122744566677	3.77E-05	0.003704612952141	371.493333278165
ENSG00000175567	protein_coding	71	61	326	246	189.905997504969	2.48875048771159	0.604157001950205	4.11937704881008	3.80E-05	0.003712899733762	5.61291607344845
ENSG00000244300	antisense	101	51	0	0	33.0836580043493	-8.32986392944629	2.0233804513033	-4.11680557854597	3.84E-05	0.003727682753206	0.003107875499394
ENSG00000154175	protein_coding	3844	4436	9509	4451	5438.15772913814	1.01795784953443	0.247393672439956	4.11472872161469	3.88E-05	0.003727682753206	2.02505044899809

ENSG00000170412	protein_coding	GPRC5C	139	72	539	291	267.358314668523	2.2695945756035	0.551609250684713	4.11449894287441	3.88E-05	0.003727682753206	4.82187608262833
ENSG00000048740	protein_coding	CELF2	349	500	1251	733	720.6226460688955	1.54132882840363	0.374967803450634	4.11056313160646	3.95E-05	0.0037703444005797	2.91062477001161
ENSG00000132840	protein_coding	BHMT2	901	1241	432	144	607.525237344345	-1.69902358317063	0.413606960524302	-4.10782154393297	3.99E-05	0.003793932100653	0.307994483655127
ENSG00000060982	protein_coding	BCAT1	1293	1467	3548	1598	1933.12059826616	1.15456098239366	0.283091823391411	4.07839749153519	4.53E-05	0.004258840598487	2.22616570265605
ENSG00000272841	antisense	RP3-428L16.2	1986	1997	878	484	1229.7720354886	-1.24726813876601	0.30591657908248	-4.07715117143007	4.56E-05	0.004258840598487	0.421245115014348
ENSG00000174348	protein_coding	PODN	3304	3116	970	894	1937.68177389785	-1.36399780698378	0.33553935962815	-4.06509032572196	4.80E-05	0.004460540664413	0.388504225192609
ENSG00000153208	protein_coding	MERTK	234	183	21	0	94.8555575650821	-4.33338588327712	1.06805877485336	-4.05275423738811	4.97E-05	0.00458761365047	0.049604476005731
ENSG00000164176	protein_coding	EDIL3	231	419	1160	582	600.244868190647	1.70430254832707	0.420558947867071	4.05247006863295	5.07E-05	0.00464265390328	3.25871356714554
ENSG00000241015	pseudogene	TPM3P9	58	69	364	200	178.470741241395	2.45185763207139	0.605109301154994	4.05192520986116	5.08E-05	0.00464265390328	5.47120128027692
ENSG00000235750	protein_coding	KIAA0040	3	0	86	66	43.616503312322	6.03648125929188	1.49166351113043	4.0468116396554	5.19E-05	0.004719694304976	65.6389956604949
ENSG00000096696	protein_coding	DSP	1488	1829	3850	2033	2283.98953327326	1.11887923616586	0.276946712443493	4.04005242125554	5.34E-05	0.004831823188642	2.17178191144581
ENSG00000167703	protein_coding	SLC43A2	1274	1352	462	304	781.396664517155	-1.43657432439256	0.3555714106268858	-4.03856439504697	5.38E-05	0.004836707007188	0.3699443506282437
ENSG00000064300	protein_coding	NGFR	162	131	962	225	344.134295861488	2.14145738465133	0.530557386322622	4.03624082871434	5.43E-05	0.004858989162838	4.4120752123099
ENSG00000160886	protein_coding	LY6K	1424	990	98	229	633.8590902591	-2.27929659088128	0.567304050646247	-4.01776893411004	5.88E-05	0.005228288676233	0.20599816754819
ENSG00000101825	protein_coding	MXRA5	1750	1522	4176	1820	2257.23411027797	1.12109460032201	0.280053597194148	4.00314301103159	6.25E-05	0.005533297152467	2.17511940384685
ENSG00000174093	protein_coding	RP11-473M20.16	121	165	663	283	305.226060747256	1.97083151566447	0.494384570686993	3.98643410923212	6.71E-05	0.005881571824045	3.91993984664696
ENSG00000120129	protein_coding	DUSP1	2960	3096	1662	629	1893.50245877471	-1.18409951161863	0.297048788087839	-3.9862122287753	6.71E-05	0.005881571824045	0.440099149368603
ENSG00000147883	protein_coding	CDKN2B	2051	2112	1077	301	1237.3258905527	-1.43683313672712	0.362218715795326	-3.9667556480958	7.29E-05	0.006317316127078	0.36937723589432
ENSG00000170962	protein_coding	PDGFR	118	123	522	271	263.576459033806	2.00584187522187	0.509802468096208	3.93454720357168	8.34E-05	0.007167284103649	4.01622995499119
ENSG00000261889	lincRNA	RP11-473M20.16	82	32	269	287	190.614496829335	2.73692106425943	0.695691324399691	3.93410362320162	8.35E-05	0.007167284103649	6.66646089798008
ENSG00000215853	protein_coding	RP11-473M20.16	32	107	0	0	30.0944821339441	-8.19334173912967	2.09660237512749	-3.90791398327565	9.31E-05	0.007891301623738	0.003411634648824
ENSG00000121570	protein_coding	DPP4	0	0	10	74	30.854136700309	8.88700055892906	2.1980214463175	3.90669552988916	9.36E-05	0.007891301623738	384.542850276479
ENSG00000095397	protein_coding	DFNB31	1060	1398	513	78	666.665280008058	-1.99331369249512	0.510312282182162	-3.90606646575594	9.38E-05	0.007891301623738	0.25116133788559
ENSG00000067182	protein_coding	TNFRSF1A	5893	6532	3434	609	3623.51800408731	-1.54190193676229	0.395026812105169	-3.90328425694756	9.49E-05	0.007943088817597	0.3434342401439418
ENSG00000010438	protein_coding	PRSS3	77	144	5	0	48.91884627161251	-5.39061641768737	1.38169183742946	-3.90146071045495	9.56E-05	0.007963749786109	0.02383761291292
ENSG00000145824	protein_coding	CXCL14	27	24	391	65	114.75650642798	3.23008523922983	0.82898226877844	3.8964467165165	9.76E-05	0.00809050043819	9.3832339270397

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Table 1 (continued)

Feature_gene_biotype	Feature_gene_name	Adult_fib1_fib2	Adult_fib1_fib2	Fetal_fib1_fib2	Fetal_fib2	baseMean	log2FoldChange	lfcSE	stat	pvalue	padj	FoldChange
protein_coding	SGCD	726	596	1445	1234	1057.99268763639	1.42186171105184	0.36527025440933	3.892629346467822	9.92E-05	0.008178820156966	2.67931036833744
protein_coding	KR17	1847	842	3277	2513	2221.70097012692	1.48238710303967	0.381385460544991	3.8868474454201	0.00010155453147	0.00833535593311134	2.79410667733533
protein_coding	KIAA1522	1002	976	3155	1042	1468.01497157199	1.27396987737056	0.3284567346229789	3.87865354747454	0.0001050306219819	0.008579480215956	2.41826085926592
protein_coding	GADD45G	1644	2162	838	462	1174.062270068035	-1.24768598655158	0.3222721557044565	-3.86613772559138	0.000110572511321	0.008945263260398	0.421123127452073
protein_coding	RAPSN	5	0	92	71	47.2048963968676	5.40065060340543	1.39805624587486	3.86297090645726	0.000112016352973	0.0090189166647935	42.2432990534727
protein_coding	TBC1D7	1134	1179	513	226	693.257271257659	-1.39433482422971	0.361989390251353	-3.85186655128629	0.000117220901707	0.0093932227516889	0.380420046139651
protein_coding	MYBL2	635	530	1296	1083	935.074403844787	1.42778679668564	0.3711055965130735	3.8479014781034	0.000119133942146	0.009501493838718	2.69033680625793
protein_coding	CTD-2526A2.2	0	0	27	54	26.4623936896524	8.36654429079188	2.17653657730383	3.84397137086292	0.000121059134765	0.009609708218827	330.050801381358
protein_coding	CADM1	57	23	322	148	138.633159255858	2.81119035820948	0.7324588810161049	3.83801835572347	0.000124031212558	0.009754554947835	7.0186344113029
protein_coding	SORP	17	3	232	63	75.4036188522228	4.02879382379469	1.04971027259862	3.83800552301081	0.000124037693032	0.009754554947835	16.3225417194159
protein_coding	KIFAP3	664	585	1523	915	933.2644235290959	1.2854342044311	0.335143794662397	3.83547069915457	0.000125324047319	0.009772309337624	2.43755404169706
protein_coding	CDK5RAP2	2121	2315	1164	505	1389.41519663582	-1.16222808826828	0.303035747001523	-3.83528379000924	0.00012541939474	0.009772309337624	0.446821933609152
protein_coding	HCK	0	0	44	42	25.1896507010084	8.2976161875382152	2.165807923559633	3.8311886587077	0.00012752567251	0.009890844361471	314.653188867977
protein_coding	PIEZO2	60	42	276	191	151.939900835585	2.54711455112535	0.665797872644668	3.8256573890928	0.000130423575263	0.010069414660055	5.84464156491443
lincRNA	LINC00856	305	180	21	23	118.691547275111	-3.02551613946884	0.791606586418793	-3.82199465160617	0.000132376561567	0.010140294238413	0.122808630866292
protein_coding	TNFAIP2	3138	3220	734	906	1881.25560915056	-1.4680660551871	0.384140701004728	-3.82168838521653	0.000132541106381	0.010140294238413	0.361466523130384
protein_coding	ITGA2	4507	5599	2684	386	2881.98818802936	-1.6701136299853	0.438091809945021	-3.81224572583288	0.0001377098668585	0.010488281342476	0.3142285932827803
protein_coding	KIF26A	0	0	19	59	26.8090595060573	8.38459887991573	2.20079424874678	3.80980388471196	0.000139075943168	0.010544825323234	334.20717119963
protein_coding	AJAPI	132	171	424	468	333.171361909664	2.0207744631995	0.5332876338959549	3.78927808161608	0.000151086486617	0.011404331766631	4.05801574633116
processed_transcript	SNHG5	6448	7628	2586	2228	4442.75425748457	-1.1411273259394	0.301715064394561	-3.78213573022367	0.000155488535163	0.011684445122398	0.453405147321798
protein_coding	TPST1	2640	3309	1612	712	1891.89767245118	-1.10374449286449	0.2923389323248842	-3.77491380533457	0.000160062999431	0.011974978736225	0.465307229294965
protein_coding	ARHGAP22	947	756	355	76	470.93003437603	-1.8682147774355	0.495366453616001	-3.77137927614693	0.000162347696661	0.01209240024292	0.273912160622835
protein_coding	CNIPTAB	2213	2482	1072	647	1486.50724831425	-1.12740940840182	0.299289889827888	-3.76694785464618	0.000165255500652	0.01225500002204	0.457736928062912
lincRNA	RP11-230G5.2	83	135	6	0	48.4873599831569	-5.1269561228105	1.3620700237684	-3.76409144415785	0.000167155711883	0.012328155463754	0.028617548042842

ENSG00000134107	protein_coding	BHLHE40	3555	3676	2090	494	2181	8683	34601619	-1.358693720104	0.361039904642218	-3.76327852769578	0.00016770024584	0.012328155463754	0.38993519460918
ENSG00000169297	protein_coding	NR0B1	88	73	1	0	35	19	26961022274	-7.04161128038289	1.87348962970399	-3.75855364702257	0.000170898399146	0.012508875033595	0.0075903468485962
ENSG00000156113	protein_coding	KCNMA1	424	499	1235	673	710	1990	560826122	1.34681387142883	0.358780238465835	3.75386859986646	0.000174126167205	0.012690194978878	2.54349784423011
ENSG00000128591	protein_coding	FLNC	14774	11019	22761	18909	17539	7918412123	1.08922144562395	0.290433629499953	3.75032825055175	0.000176603233361	0.012815482702464	2.12759189418633	
ENSG00000180543	protein_coding	TSPYL5	177	123	446	432	323	014639199007	1.97995944094572	0.5287851623137736	3.744459264861671	0.000180686693073	0.013055771822585	3.944811991413752	
ENSG00000131389	protein_coding	SLC6A6	6120	7893	4289	1282	4400	64010594974	-1.16105384672479	0.3110773075700999	-3.73601813511625	0.00018695719099	0.013451371001106	0.447185759950227	
ENSG00000181195	protein_coding	PENK	92	81	347	254	206	139477230862	2.16281035759177	0.579361218714109	3.73309480809248	0.000189141358767	0.013550856330664	4.47786290039986	
ENSG00000133816	protein_coding	MICAL2	2541	3125	6843	2825	3702	31400226287	1.0075999683283	0.270229476174724	3.72846075526335	0.0001926652902967	0.013744199507877	2.01048001723891	
ENSG00000187800	protein_coding	PEAR1	358	468	1173	607	650	930127630979	1.3954464098338	0.37476388835833	3.72353487937661	0.000196452705832	0.01395639642943	2.63069940579732	
ENSG00000118194	protein_coding	TNNT2	0	9	225	35	60	6649047328407	4.91878673589549	1.32225611285675	3.71999545932776	0.0001992266359687	0.014082554921766	30.2483959843923	
ENSG00000159217	protein_coding	IGFBP1	135	181	614	301	308	941190769767	1.80949292431581	0.486533999154359	3.71915000279707	0.000199894321104	0.014082554921766	3.50519067103868	
ENSG00000179195	protein_coding	ZNF664	1405	1378	3078	1587	1843	83344714719	1.03550898252746	0.278924587981785	3.71250519726529	0.000205217845359	0.014397607175663	2.04983670049725	
ENSG00000118985	protein_coding	ELL2	4766	5134	3022	1186	3217	81266770995	-1.00871749395281	0.272374949720698	-3.703415077171338	0.000212716415544	0.014862021297583	0.496887856435761	
ENSG00000169116	protein_coding	PARM1	4	18	193	72	71	4966988517813	3.80980197667053	1.02925261621485	3.70152275219018	0.000214309434831	0.014911703391419	14.023766516395	
ENSG00000198814	protein_coding	CK	515	651	216	53	317	035916643192	-1.97437610550395	0.5334006756097419	-3.69728675332296	0.000217916140536	0.015071940779704	0.254479949268465	
ENSG00000123689	protein_coding	C052	835	382	61	103	317	334358059961	-2.35285743822875	0.636470071427226	-3.69672910613484	0.000218395167437	0.015071940779704	0.195757917179487	
ENSG00000245910	processed_transcript	SNHG6	1348	1373	3984	1329	1907	31731627407	1.15613188421918	0.313055801183217	3.69305369793338	0.00022157721225	0.015229380100501	2.22859101936441	
ENSG00000172061	protein_coding	LRRCL15	4599	4607	1308	1435	2821	23607088641	-1.28549011544877	0.349609691365472	-3.67692929343013	0.000236058493697	0.016088986467857	0.410231416034781	
ENSG00000214448	protein_coding	DIO2	68	93	1	1	35	5296726237908	-5.97674199617923	1.62629133105767	-3.67507462042009	0.000237779907581	0.016088986467857	0.015878935433772	
ENSG00000149090	protein_coding	PAMR1	6225	5650	1908	1898	3702	48422874456	-1.20265124460315	0.327245400582758	-3.6750745540242	0.000237779969419	0.016088986467857	0.434476109623525	
ENSG00000136630	protein_coding	HLX	456	369	109	8	204	277982130314	-2.81781681426683	0.7665761996506443	-3.67495627992194	0.000237890147679	0.016088986467857	0.141824942649675	
ENSG00000173221	protein_coding	GLRX	1506	1565	507	419	931	95833687885	-1.133584473356762	0.363910710929235	-3.67080356100699	0.000241789118889	0.016287531562433	0.396160038898046	
ENSG00000105664	protein_coding	COMP	13959	13072	5250	4542	8695	45389418179	-1.0576583328474	0.288818684985426	-3.66201491742395	0.000250239284175	0.016789864352527	0.480411192185673	
ENSG00000178573	protein_coding	MANF	63	168	579	271	271	691309618367	2.147732056150759	0.58734988428311	3.65594787530861	0.00025623342035	0.017056671934191	4.43004256707733	
ENSG00000164220	protein_coding	F2RL2	50	30	339	111	128	595026732731	2.67793389550472	0.733729065915873	3.64975850065583	0.000262486971449	0.017404430248065	6.39938779907037	
ENSG00000138741	protein_coding	TRPC3	0	0	31	43	22	9751232580614	8.16356961371208	2.23761318484204	3.64833817972257	0.000263942066058	0.017432548644146	286.734087261732	

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Table 1 (continued)

Feature_gene_biotype	Feature_gene_name	Adult_fib1	Adult_fib2	Fetal_fib1	Fetal_fib2	baseMean	log2FoldChange	lfcSE	stat	pvalue	padj	FoldChange
ENSG00000095303	protein_coding	1809	1702	628	494	1081.21403891997	-1.26351351956513	0.346574617484666	-3.64571857147339	0.000266645666119	0.017490158369378	0.416528316226842
ENSG00000138162	protein_coding	527	678	231	66	333.561138843631	-1.85240891815863	0.508353963645362	-3.64393523141861	0.000268501013647	0.017528243778902	0.276929582790374
ENSG00000158158	protein_coding	1871	3052	1322	391	1485.10412701033	-1.35293192779731	0.372286225511296	-3.63411760921104	0.000278933612447	0.018099500792661	0.391495652004349
ENSG00000110852	protein_coding	1624	2284	990	438	1217.12588944062	-1.19906172582038	0.33002639777883	-3.63322974735912	0.000279895587276	0.018099500792661	0.43555846026961
ENSG00000165891	protein_coding	2192	3439	1539	333	1659.66978338253	-1.47601510204588	0.406325692705684	-3.6325911172814	0.000280589447413	0.018099500792661	0.35948037017291
ENSG00000273295	lincRNA	0	0	27	45	22.953518664888	8.1616934862582	2.24836436218968	3.63005819853394	0.000283357323004	0.018099500792661	286.361451295159
ENSG00000152137	protein_coding	8507	13413	5914	3021	7117.60324473004	-1.00905201605062	0.278279328704931	-3.62604014012321	0.000287800637136	0.018293733731962	0.496872631705475
ENSG00000115318	protein_coding	667	510	1337	939	889.821703602868	1.30786989121688	0.36094254223765	3.62348500985444	0.00029066005647	0.018406293014232	2.475757296858311
ENSG00000120549	protein_coding	540	647	229	71	331.258053648861	-1.801259469938663	0.49757763770038	-3.62005717933144	0.000294537921616	0.018537431802308	0.286923989440093
ENSG00000172216	protein_coding	9523	9645	6225	1740	6089.01418636113	-1.1116550549134	0.307111035761209	-3.61871852537302	0.000294923654768	0.018537431802308	0.462762701802615
ENSG00000099290	protein_coding	803	1133	236	230	557.053888247774	-1.62339763011114	0.449424897101772	-3.61213391836979	0.000303687654989	0.019017595816844	0.324570181556485
ENSG00000144857	protein_coding	576	527	1103	1090	885.596432893864	1.42863303166339	0.396024244647442	3.60743830957658	0.0003092325030067	0.019174017727211	2.69191532762076
ENSG00000160469	protein_coding	44	23	195	161	116.417465663293	2.80205207174396	0.776759081491864	3.60736313035731	0.000309324613357	0.019174017727211	6.974317638468
ENSG00000105976	protein_coding	1654	1895	304	475	1016.69085831427	-1.652319038458994	0.458068681817486	-3.60714256190581	0.000309587582182	0.019174017727211	0.318128374937096
ENSG00000076864	protein_coding	117	60	680	144	230.895713018817	2.3232721848298	0.6443330401970818	3.60571560448427	0.00031129391084	0.019209333739014	5.00466043138347
ENSG00000106789	protein_coding	76	36	0	0	24.3816084096144	-7.88952959223407	2.18895089479347	-3.60425152112809	0.000313053782886	0.019247684949208	0.004217110113281
ENSG00000163738	protein_coding	206	271	49	15	119.192996663303	-2.70936689095493	0.752213155276947	-3.601860552325554	0.000315947838967	0.019355239323264	0.152897117018057
ENSG00000133433	protein_coding	92	55	1	0	32.1807015258276	-6.91398938781721	1.92105991941339	-3.59904931540525	0.00031832624825	0.019495023178863	0.008292429817189
ENSG00000073111	protein_coding	610	387	1014	1140	864.464765421799	1.57664359771686	0.438581858234168	3.59486739916627	0.0003245566913838	0.019739598198445	2.98275110579977
ENSG00000139044	protein_coding	24	12	77	183	94.6090135494146	3.46462480061183	0.9655418936847234	3.58826978225668	0.0003328797545656	0.020163848627343	11.0396673851916
ENSG00000163291	protein_coding	1380	1542	517	400	894.029508513455	-1.29313462185517	0.360459866312884	-3.58745797439961	0.000333917531089	0.020163848627343	0.408063443772905
ENSG00000144560	protein_coding	2372	2880	1544	481	1637.02365984526	-1.19588641305104	0.333491843984229	-3.57074983919455	0.000355960741625	0.021087611749516	0.436518162368589
ENSG00000139289	protein_coding	8732	11405	6446	2281	6551.3245887946	-1.00245393671591	0.280778824326694	-3.57026189250483	0.000356624497306	0.021087611749516	0.499150253230767
ENSG00000118689	protein_coding	1498	1957	912	178	1001.99684608347	-1.56746822046466	0.439181069857255	-3.56907054526309	0.00035824695749	0.021087611749516	0.337399976799659

ENSG00000156804	protein_coding	FBXO32	1799	2822	1251	427	1419.52390342656	-1.26286313266271	0.35383949887519	-3.56902815168228	0.000358307926251	0.021087611749516	0.021087611749516	0.41671613523452
ENSG00000121060	protein_coding	TRIM25	2831	2852	1476	825	1851.78376072234	-1.00018916200895	0.28029208071517	-3.568838180892216	0.000359192819012	0.021087611749516	0.021087611749516	0.499934445471148
ENSG00000137726	protein_coding	PXYD6	0	0	90	11	22.319103500489	8.13058903081347	2.2823834297154	3.56162032474663	0.000368573124624	0.021483266698454	280.253587516582	
ENSG00000166670	protein_coding	MMP10	448	655	186	19	283.991212920716	-2.40367642154468	0.675040643667414	-3.56078770084982	0.000369743944242	0.021483266698454	0.188982372669292	
ENSG00000127124	protein_coding	HIVEP3	92	156	350	404	281.414105767452	2.078396666819117	0.584095877749881	3.55831422094228	0.0003732426444023	0.021605275044573	4.223375925767473	
ENSG00000003137	protein_coding	CYP26B1	100	82	345	248	205.363792768471	2.06578093440323	0.580683135313176	3.5575011719414	0.000374399431515	0.021605275044573	4.186603565792	
ENSG00000157303	protein_coding	SUSD3	0	5	35	96	45.51934381422284	5.35595771009857	1.50678828739339	3.55455225854184	0.000378623259868	0.021774700945082	40.9547167146534	
ENSG00000273096	sense_intronic	RP3-508115.20	0	0	12	54	23.4573139446154	8.19144880352686	2.30549870151335	3.5530051689684	0.000380856981269	0.021828914709494	292.328930581427	
ENSG00000162746	protein_coding	FCRLB	540	540	203	72	303.338020309772	-1.7650507552395	0.497575159419652	-3.5473048077808	0.0003891940227252	0.022231393962108	0.294216333341584	
ENSG00000201900	misc_RNA	Y_RNA	0	0	4	64	25.753354774783	8.32613541184425	2.35366357322376	3.53752146507503	0.00040390135394	0.022993818493008	320.9345748468871	
ENSG00000267274	sense_intronic	CTD-2006C1.12	0	0	14	51	22.6883662356989	8.14352265386664	2.30930168831163	3.52640051899902	0.000421246938811	0.023744467567374	282.777329774799	
ENSG00000065833	protein_coding	ME1	1712	1821	841	481	1123.21098820125	-1.10870510419002	0.314404191826313	-3.52636870949387	0.000421299992324	0.023744467567374	0.463710048739666	
ENSG00000116514	protein_coding	RNF19B	2535	3218	1715	463	1772.85992083879	-1.24995234008031	0.354614113283237	-3.52482400801108	0.000423764226048	0.023744664166123	0.420462097505337	
ENSG00000241155	antisense	ARHGAP31-AS1	0	0	20	46	21.9410231199557	8.09585890566705	2.29695392431995	3.5246065756691	0.000424112170462	0.023744664166123	273.58757581221	
ENSG00000260792	lincRNA	RP11-982M15.8	0	0	15	50	22.4988298826165	8.13151386124265	2.30772612315783	3.52360437386552	0.000425719387425	0.023755984826987	280.433299882069	
ENSG00000123358	protein_coding	NR4A1	1792	2158	1111	421	1244.25106106377	-1.14688220480014	0.3266880298299448	-3.51071739180569	0.0004468992304	0.024774335041349	0.451600126454809	
ENSG00000132321	protein_coding	IQCA1	0	0	10	54	23.0566366452772	8.1664652893879	2.33018472071924	3.50442879498	0.000457220151871	0.025071613725367	287.310177637578	
ENSG00000163751	protein_coding	CPA3	0	0	29	39	21.0149459477168	8.03498924603737	2.29302276331895	3.50410356781954	0.000458147141037	0.025071613725367	262.284591599076	
ENSG00000151012	protein_coding	SLC7A11	7612	10594	5740	1224	5577.92595781159	-1.27870648722621	0.3644919645350163	-3.50407686601583	0.000458193082632	0.025071613725367	0.412164887884561	
ENSG00000172572	protein_coding	PDE3A	26	58	274	141	128.069379058685	2.59309400113426	0.7411035271732	3.4989637831372	0.0004670700184	0.0253929899939276	6.0339151163072	
ENSG00000138650	protein_coding	PCDH10	120	65	861	108	254.8566285807	2.41781108245313	0.691483177270483	3.496559808811847	0.000471301905657	0.025540937887326	5.34359653625531	
ENSG00000151892	protein_coding	GFR1	329	386	1647	362	626.329873083515	1.60382734944394	0.459052600722612	3.49377885023306	0.000476238909696	0.025726030303986	3.03948594892659	
ENSG00000101096	protein_coding	NFATC2	424	217	587	1036	661.021460061943	1.90033293731943	0.90033293731943	3.48421437412159	0.000493583974313	0.026578082285627	3.73299334666403	
ENSG00000171310	protein_coding	CHST11	575	670	245	103	358.554373888909	-1.59592791998979	0.458338028517821	-3.48198888309513	0.000497704354403	0.026714873707728	0.330809387479182	
ENSG00000101577	protein_coding	LPIN2	2478	3128	1685	443	1727.16447075961	-1.251053381834259	0.3595881080136419	-3.47919812095777	0.000502916630465	0.026909222746509	0.420141202863248	

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ENSG00000092929	protein_coding	UNC13D	0	4	67	53	34.9496573229909	5.29779226981223	1.572713650822336	3.36856761371576	0.000755598616886	0.036690532829274	39.3363793937334
ENSG00000109472	protein_coding	CPE	2111	2908	6956	2223	3349.42408964517	1.05383133348289	0.3132117171536498	3.06459683146269	0.000766555807315	0.037031215971639	2.07603581605417
ENSG00000134909	protein_coding	ARHGAP32	348	437	98	2	190.813428675779	-3.03173846668063	0.903123876614366	-3.3569464250631	0.000788083823654	0.037962738718908	0.122280099240617
ENSG00000138759	protein_coding	FRAS1	1050	972	1997	1294	1343.89779144596	1.04120821972936	0.310428252005764	3.35410264047111	0.000796228217439	0.038137752692529	2.05795041199543
ENSG00000206195	processed_transcript	AP0005259	24	110	1	0	29.1941705794817	-6.77706718050755	2.0213364273189	-3.35276557010946	0.00080008442986	0.038214202090584	0.009117998072061
ENSG00000056972	protein_coding	TRAF3IP2	737	672	324	105	411.996417538222	-1.526543599393	0.455660871752823	-3.35017486474258	0.000807605591954	0.038404128568457	0.347107970963021
ENSG00000128276	protein_coding	RPL3	0	0	13	45	20.1487775695207	7.972223004334314	2.38092388741267	3.34837668918787	0.000812864449244	0.038424201234324	251.119463805355
ENSG00000145242	protein_coding	EPHA5	19	4	51	154	75.2739328476179	3.80406051846242	1.13617270553478	3.34813380711034	0.00081357132966	0.038424201234324	13.9680673811573
ENSG00000254681	pseudogene	PKDIP5	192	133	512	320	298.008117688163	1.68464926932169	0.504233976461434	3.34100704824388	0.000834751039172	0.038881461626211	3.21462236761758
ENSG00000163694	protein_coding	RBM47	45	49	0	0	20.41344884818103	-7.63330110046684	2.28557610269877	-3.33977113754977	0.000838474572472	0.038947604591628	0.005036715296985
ENSG00000241839	protein_coding	PLEKHO2	3099	4489	2377	549	2336.67822220373	-1.25196776309951	0.3763144413993	-3.3269192605103	0.0008781181232087	0.04067731842507	0.419875128442014
ENSG00000143669	protein_coding	LYST	1044	1503	677	131	739.35681136216	-1.55948667549028	0.469452129923636	-3.32192906600286	0.000893974174748	0.041298675810483	0.339271776488157
ENSG00000183098	protein_coding	GPGC	550	524	1077	862	785.166312641953	1.2402779263828	0.375785678626527	3.30049295928906	0.000965151903073	0.044282412926555	2.362440388728
ENSG00000132688	protein_coding	NES	312	203	783	396	423.268433687683	1.47458679592262	0.447697590446747	3.29371170933953	0.000988738509838	0.045030128968851	2.77904037728561
ENSG00000137142	protein_coding	IGFBP1	0	0	34	29	18.1178891685465	7.8226152524338	2.37879029065294	3.2884846063024	0.001007282927315	0.045541455172691	226.381970335302
ENSG00000260060	antisense	RP11-388M20.1	0	6	21	104	46.0495009032046	5.10332069605019	1.55224159030852	3.28771032029612	0.001010057114369	0.045541455172691	34.3758362605267
ENSG00000181234	protein_coding	TMEM132C	0	5	57	63	37.0609190161467	5.05524033138475	1.54109025625707	3.27900349176033	0.00104174346917	0.04672095113191	33.2029868267675
ENSG00000251417	lincRNA	RP11-1348G14.4	0	0	0	71	27.6811251953629	8.43173892392978	2.57602999454173	3.27315246398354	0.001063550919834	0.047455062322396	345.307754814977
ENSG00000083454	protein_coding	P2RX5	60	31	0	0	19.8054282157077	-7.58963212033502	2.31878585234906	-3.27310610104262	0.001063725394008	0.047455062322396	0.005191502598468
ENSG00000259426	antisense	RP11-253M7.1	47	43	0	0	19.5551460406042	-7.5713177919137	2.31527545045656	-3.27015854191273	0.0010748722321557	0.047678248221296	0.005257826344729
ENSG00000001084	protein_coding	CCLC	4208	5649	3089	464	2938.98611664574	-1.41741812849817	0.433520887724074	-3.26954979248963	0.001077187770318	0.047678248221296	0.374381712854526

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Table 1 (continued)

Feature_ gene_ biotype	Feature_ gene_ name	Adult_ fb1	Adult_ fb2	Fetal_ fb1	Fetal_ fb2	baseMean	log2FoldChange	lfcSE	stat	pvalue	padj	FoldChange
ENSG00000118496	protein_ coding	2673	4512	2186	679	2260.96359340583	-1.14746364166346	0.351318447153458	-3.26616393463176	0.001090151191196	0.04812604788705	0.451418158645528
ENSG00000127152	protein_ coding	3	6	35	86	42.4921212082157	4.37056362670957	1.339653830899	3.262457454234	0.001104507508061	0.048506527133243	20.6857251336219
ENSG00000102466	protein_ coding	386	271	60	55	176.329477470044	-2.10517734543983	0.645846158480498	-3.25956470871166	0.001115833233295	0.048876964529907	0.232422662994626
ENSG00000106546	protein_ coding	753	926	401	54	465.8736910368	-1.83589483207837	0.563747782812771	-3.25658900673334	0.001127595716048	0.049264569423608	0.280117722503438
ENSG00000156381	protein_ coding	1768	1344	904	237	950.057821864885	-1.302456139888665	0.400118319099465	-3.25517747554785	0.00113321526805	0.049382483887375	0.405435370178933
ENSG00000163395	protein_ coding	70	89	307	198	173.212168488064	2.00543146133031	0.616470260875153	3.25308711321024	0.00114158493921	0.04961932868693	4.01508759150723

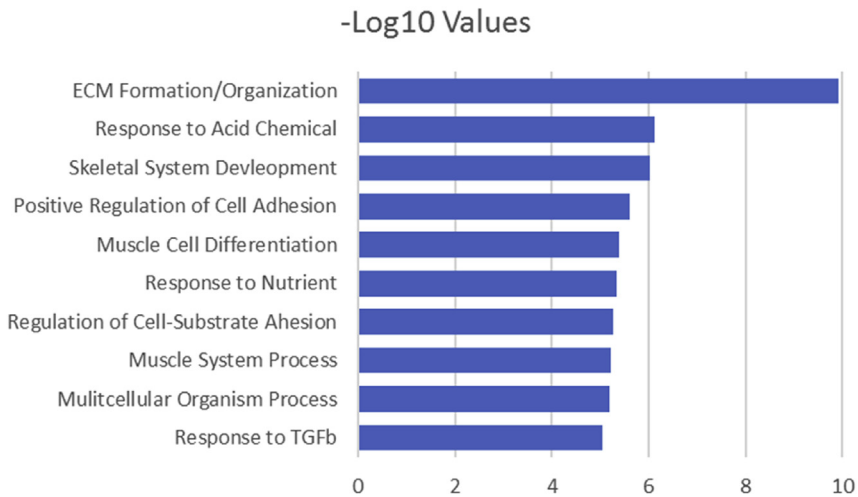


Fig. 2. The top ten statistically significant GO: Biological Processes identified between adult and fetal dermal fibroblasts (expressed as the $-\log(p\text{-values})$). Categories that were originally found to contain genes that were redundant (Extracellular Structure Organization, Positive Regulation of Cell-Substrate Adhesion, and Female Pregnancy) and overlapped with other categories (ECM Formation/Organization, Regulation of Cell-Substrate Adhesion, and Multicellular Organism Process) were excluded to provide a more diverse representation of different biological domains.

2.5. Transcriptome analysis

RNA reads were aligned to the human genome hg19 using STAR and quantified by featureCounts [6,7]. Alignment quality was checked by RSeQC [8]. DESeq2 was used to detect differential expression between fetal and adult dermal fibroblasts [9]. Functional enrichment analysis were performed using WebGestalt and GSEA to identify enriched pathways to provide insight into the biological differences [10,11].

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Conflict of Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.dib.2019.104519>.

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