

## **Proteomic biomarkers of sleep apnea**

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Table S1

<b>Table S1: Full list of protein variables used in the SOMAscan panel</b>							
<u>SegId</u>	<u>Somald</u>	<u>TargetFullName</u>	<u>Target</u>	<u>UniProt</u>	<u>EntrezGeneID</u>	<u>EntrezGeneSymbol</u>	<u>Dilution</u>
10336-3_3	SL019100	E3 ubiquitin-protein ligase CHIP	CHIP	Q9UNE7	10273	STUB1	40
10337-83_3	SL007136	CCAAT/enhancer-binding protein beta	CEBPB	P17676	1051	CEBPB	40
10339-48_3	SL001731	Gamma-enolase	NSE	P09104	2026	ENO2	1
10342-55_3	SL019096	E3 SUMO-protein ligase PIAS4	PIAS4	Q8N2W9	51588	PIAS4	40
10344-334_3	SL005173	Interleukin-10 receptor subunit alpha	IL-10 Ra	Q13651	3587	IL10RA	1
10346-5_3	SL007221	Signal transducer and activator of transcription 3	STAT3	P40763	6774	STAT3	1
10351-51_3	SL007108	Interferon regulatory factor 1	IRF1	P10914	3659	IRF1	1
10356-21_3	SL000455	Transcription factor AP-1	c-Jun	P05412	3725	JUN	40
10358-33_3	SL003755	Induced myeloid leukemia cell differentiation protein Mcl-1	Mcl-1	Q07820	4170	MCL1	40
10361-25_3	SL014684	2'-5'-oligoadenylate synthase 1	OAS1	P00973	4938	OAS1	40
10362-35_3	SL002565	Myc proto-oncogene protein	c-Myc	P01106	4609	MYC	40
10363-13_3	SL004097	Mothers against decapentaplegic homolog 3	SMAD3	P84022	4088	SMAD3	1
10364-6_3	SL004101	Mothers against decapentaplegic homolog 2	SMAD2	Q15796	4087	SMAD2	40
10365-132_3	SL005184	Interleukin-23	IL-23	P29460, Q9NPF7	3593 51561	IL12B IL23A	40
10366-11_3	SL001728	Platelet-derived growth factor receptor alpha	PDGFRA	P16234	5156	PDGFRA	40
10367-62_3	SL001716	Interleukin-12	IL-12	P29459, P29460	3592 3593	IL12A IL12B	40
10370-21_3	SL004396	Signal transducer and activator of transcription 1 alpha/beta	STAT1	P42224	6772	STAT1	40
10372-18_3	SL007229	Signal transducer and activator of transcription 6	STAT6	P42226	6778	STAT6	1
10990-21_3	SL017128	Leucine-rich repeat serine/threonine-protein kinase 2	LRRK2	Q5S007		LRRK2	1
11067-13_3	SL001791	Osteocalcin	Osteocalcin	P02818	632	BGLAP	1
11071-1_3	SL000481	Interleukin-5	IL-5	P05113	3567	IL5	40
11081-1_3	SL007151	Glycerol-3-phosphate dehydrogenase [NAD(+)], cytoplasmic	GPDA	P21695	2819	GPD1	40
11089-7_3	SL000459	Immunoglobulin A	IgA	P01876 P01877	3493 3494	IGHA1 IGH A2	0.005
11094-104_3	SL007361	Galectin-10	LPPL	Q05315	1178	CLC	40
11096-57_3	SL018921	HemK methyltransferase family member 2	HEMK2	Q9Y5N5	29104	N6AMT1	1
11098-1_3	SL007953	Pyridoxal kinase	PDXK	O00764	8566	PDXK	40
11101-18_3	SL004489	Toll-like receptor 4	TLR4	O00206	7099	TLR4	40

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11102-22_3	SL012561	Regenerating islet-derived protein 4	REG4	Q9BYZ8	83998	REG4	1
11103-24_3	SL000448	Heat shock protein beta-1	HSP 27	P04792	3315	HSPB1	40
11104-13_3	SL003340	Chitinase-3-like protein 1	YKL-40	P36222	1116	CHI3L1	1
11105-171_3	SL003650	Alpha-enolase	Alpha enolase	P06733	2023	ENO1	1
11510-31_3	SL005699	Apolipoprotein L1	Apo L1	O14791	8542	APOL1	0.005
11513-92_3	SL002722	ADP-ribosyl cyclase/cyclic ADP-ribose hydrolase 1	CD38	P28907	952	CD38	40
11514-196_3	SL004557	CD59 glycoprotein	CD59	P13987	966	CD59	1
11516-7_3	SL006131	Fatty acid-binding protein, liver	FABPL	P07148	2168	FABP1	40
12060-28_3	SL004345	Growth/differentiation factor 11	GDF-11	O95390	10220	GDF11	40
13088-397_3	SL000137	Betacellulin	BTC	P35070	685	BTC	40
13089-6_3	SL003349	Hypoxia-inducible factor 1-alpha	HIF-1a	Q16665	3091	HIF1A	1
13090-17_3	SL004827	Protein S100-A6	S100A6	P06703	6277	S100A6	1
13093-6_3	SL005430	Secreted and transmembrane protein 1	SECTM1	Q8WVN6	6398	SECTM1	1
13094-75_3	SL018509	R-spondin-3	RSPO3	Q9BXY4	84870	RSPO3	40
13095-51_3	SL005357	Lithostathine-1-alpha	PSP	P05451	5967	REG1A	0.005
13097-11_3	SL003774	Bcl-2-like protein 2	Apoptosis regulator Bcl-W	Q92843	599	BCL2L2	40
13098-93_3	SL003320	Vascular endothelial growth factor D	VEGF-D	O43915	2277	FIGF	1
13101-60_3	SL007631	Sclerostin	SOST	Q9BQB4	50964	SOST	40
13102-1_3	SL012769	Protein FAM3D	FAM3D	Q96BQ1	131177	FAM3D	1
13103-125_3	SL009328	Chorionic somatomammotropin hormone	CSH	P0DML2 P0DML3	1442 1443	CSH1 CSH2	1
13104-32_3	SL008614	Ephrin-B1	EFNB1	P98172	1947	EFNB1	1
13105-7_3	SL007311	Synaptosomal-associated protein 25	SNP25	P60880	6616	SNAP25	1
13107-9_3	SL008402	Ly6/PLAUR domain-containing protein 3	LYPD3	O95274	27076	LYPD3	1
13109-82_3	SL008810	Neuronal growth regulator 1	NEGR1	Q7Z3B1	257194	NEGR1	1
13111-79_3	SL007223	B-cell lymphoma 6 protein	BCL6	P41182	604	BCL6	1
13112-179_3	SL009349	Follistatin-related protein 1	FSTL1	Q12841	11167	FSTL1	1
13113-7_3	SL002688	Osteopontin	Osteopontin	P10451	6696	SPP1	1
13114-50_3	SL006230	Lumican	Lumican	P51884	4060	LUM	0.005
13116-25_3	SL008931	CD177 antigen	CD177	Q8N6Q3	57126	CD177	1

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13117-232_3	SL018256	Choline/ethanolamine kinase	CHKB	Q9Y259	1120	CHKB	1
13118-5_3	SL011888	SPARC-related modular calcium-binding protein	SMOC1	Q9H4F8	64093	SMOC1	1
13119-26_3	SL004467	Protein Z-dependent protease inhibitor	protein Z inhibitor	Q9UK55	51156	SERPINA10	1
13122-19_3	SL008360	Leucine-rich repeat transmembrane protein FLRT2	FLRT2	O43155	23768	FLRT2	40
13123-3_3	SL008372	Leucine-rich repeat transmembrane protein FLRT3	FLRT3	Q9NZU0	23767	FLRT3	40
13124-20_3	SL018587	Immunoglobulin superfamily containing leucine-rich repeat protein 2	ISLR2	Q6UXK2	57611	ISLR2	1
13125-45_3	SL000616	Vitronectin	Vitronectin	P04004	7448	VTN	1
13126-52_3	SL008631	Desmocollin-2	DSC2	Q02487	1824	DSC2	1
13129-40_3	SL007070	Low-density lipoprotein receptor	LDLR	P01130	3949	LDLR	40
13130-150_3	SL007272	Hexokinase-2	HXK2	P52789	3099	HK2	40
13131-5_3	SL011180	Hexokinase-1	HXK1	P19367	3098	HK1	1
13132-14_3	SL008522	Semaphorin-5A	SEM5A	Q13591	9037	SEMA5A	1
13133-73_3	SL007033	Latent-transforming growth factor beta-binding protein 4	LTBP4	Q8N2S1	8425	LTBP4	1
14114-18_3	SL019019	PILR alpha-associated neural protein	PIANP	Q8IYJ0	196500	PIANP	40
14115-34_3	SL002782	Adrenomedullin	Adrenomedullin	P35318	133	ADM	1
14116-129_3	SL004821	Protein S100-A4	S100A4	P26447	6275	S100A4	1
14120-2_3	SL018629	E3 ubiquitin-protein ligase RNF43	RNF43	Q68DV7	54894	RNF43	1
14121-24_3	SL004159	Tumor necrosis factor receptor superfamily member 10D	TRAIL R4	Q9UBN6	8793	TNFRSF10D	40
14122-132_3	SL018971	E3 ubiquitin-protein ligase ZNRF3	ZNRF3	Q9ULT6	84133	ZNRF3	40
14123-34_3	SL017424	Platelet receptor Gi24	GI24	Q9H7M9		C10orf54	1
14124-6_3	SL004843	Ephrin-A2	Ephrin-A2	O43921	1943	EFNA2	1
14125-5_3	SL004747	Apolipoprotein M	ApoM	O95445	55937	APOM	40
14127-240_3	SL001880	Interferon beta	IFN-b	P01574	3456	IFNB1	40
14128-121_3	SL017106	Interferon alpha-10	IFN10	P01566	3446	IFNA10	40
14129-1_3	SL019978	Interferon alpha-7	IFNA7	P01567		IFNA7	40
14131-37_3	SL007274	Ephrin-B2	EFNB2	P52799	1948	EFNB2	40

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SeqId	Somald	TargetFullName	Target	UniProt	EntrezGeneID	EntrezGeneSymbo	Dilution
14132-21_3	SL020171	HERV-H LTR-associating protein 2	HHLA2	Q9UM44		HHLA2	1
14133-93_3	SL000145	Interleukin-1 receptor type 2	IL-1 sRII	P27930	7850	IL1R2	1
14134-49_3	SL015046	Amphoterin-induced protein 2	AMGO2	Q86SJ2	347902	AMIGO2	40
14135-3_3	SL020172	Relaxin receptor 1	RXFP1	Q9HBX9		RXFP1	40
14136-234_3	SL007696	Complement component C1q receptor	C1QR1	Q9NPY3	22918	CD93	1
14139-16_3	SL007828	Neuregulin-4	NRG4	Q8WWG1	145957	NRG4	40
14143-8_3	SL014983	Histone H2B type 2-E	H2B2E	Q16778	8349	HIST2H2BE	40
14144-3_3	SL019979	Histone H2A type 3	H2A3	Q7L7L0		HIST3H2A	1
14146-92_3	SL008158	Histone H3.1	H31	P68431	8350	HIST1H3A	40
14147-50_3	SL001802	Interferon gamma	IFN-g	P01579	3458	IFNG	40
14149-9_3	SL005179	Interleukin-36 beta	IL-1F8	Q9NZH7	27177	IL36B	40
14150-7_3	SL005177	Interleukin-36 alpha	IL-1F6	Q9UHA7	27179	IL36A	1
14151-4_3	SL015510	Ubiquitin-like protein ISG15	UCRP	P05161	9636	ISG15	40
14153-8_3	SL004139	Ephrin-A3	Ephrin-A3	P52797	1944	EFNA3	40
14156-33_3	SL004815	14-3-3 protein beta/alpha	14-3-3 protein beta/alpha	P31946	7529	YWHAB	1
14157-21_3	SL004984	14-3-3 protein epsilon	14-3-3E	P62258	7531	YWHAE	40
14158-17_3	SL003848	Annexin A5	Annexin V	P08758	308	ANXA5	40
14583-49_3	SL004357	Growth/differentiation factor 8	Myostatin	O14793	2660	MSTN	1
2182-54_1	SL000318	Complement C4b	C4b	P0C0L4 P0C0L5	720 721	C4A C4B	0.005
2190-55_1	SL002662	Coagulation Factor XI	Coagulation Factor XI	P03951	2160	F11	0.005
2192-63_10	SL003168	C-C motif chemokine 27	CTACK	Q9Y4X3	10850	CCL27	40
2201-17_6	SL000403	Endostatin	Endostatin	P39060	80781	COL18A1	1
2211-9_6	SL000591	Metalloproteinase inhibitor 1	TIMP-1	P01033	7076	TIMP1	0.005
2212-69_1	SL000053	Tissue-type plasminogen activator	tPA	P00750	5327	PLAT	1
2247-20_11	SL004332	Prokineticin-1	EG-VEGF	P58294	84432	PROK1	40
2278-61_4	SL000592	Metalloproteinase inhibitor 2	TIMP-2	P16035	7077	TIMP2	0.005
2333-72_1	SL000584	Transforming growth factor beta-1	TGF-b1	P01137	7040	TGFB1	40
2358-19_2	SL003322	Vascular endothelial growth factor receptor 3	VEGF sR3	P35916	2324	FLT4	1
2381-52_4	SL000319	Complement C5	C5	P01031	727	C5	0.005
2418-55_9	SL000276	Apolipoprotein E	Apo E	P02649	348	APOE	0.005
2421-7_3	SL003951	Brain-derived neurotrophic factor	BDNF	P23560	627	BDNF	1

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2429-27_4	SL000324	Complement component C8	C8	P07357,P07358,P07	731 732 733	C8A C8B C8G	40
2431-17_3	SL000345	Cathepsin G	Cathepsin G	P08311	1511	CTSG	40
2436-49_4	SL004016	C-X-C motif chemokine 16	CXCL16, soluble	Q9H2A7	58191	CXCL16	1
2441-2_4	SL004333	Fibroblast growth factor 10	FGF-10	O15520	2255	FGF10	40
2443-10_4	SL004342	Fibroblast growth factor 8 isoform B	FGF-8B	P55075	2253	FGF8	40
2447-7_4	SL004066	Group IIE secretory phospholipase A2	GIIE	Q9NZK7	30814	PLA2G2E	40
2449-1_4	SL004182	Calcium-dependent phospholipase A2	GV	P39877	5322	PLA2G5	40
2468-62_3	SL000133	C-C motif chemokine 20	MIP-3a	P78556	6364	CCL20	40
2474-54_5	SL000573	Serum amyloid P-component	SAP	P02743	325	APCS	0.005
2475-1_3	SL004010	Mast/stem cell growth factor receptor Kit	SCF sR	P10721	3815	KIT	1
2480-58_3	SL003043	Metalloproteinase inhibitor 3	TIMP-3	P35625	7078	TIMP3	1
2500-2_3	SL004643	Angiopoietin-4	Angiopoieti n-4	Q9Y264	51378	ANGPT4	40
2501-51_3	SL000055	Cadherin-1	Cadherin E	P12830	999	CDH1	1
2505-49_3	SL004144	GDNF family receptor alpha-3	GFRa-3	O60609	2676	GFRA3	40
2514-65_3	SL004142	Ephrin-B3	Ephrin-B3	Q15768	1949	EFNB3	40
2515-14_3	SL004143	GDNF family receptor alpha-2	GFRa-2	O00451	2675	GFRA2	1
2516-57_3	SL003193	C-C motif chemokine 21	6Ckine	O00585	6366	CCL21	1
2524-56_3	SL003280	High mobility group protein B1	HMG-1	P09429	3146	HMGB1	1
2526-53_3	SL002539	Tumor necrosis factor receptor superfamily member 11B	OPG	O00300	4982	TNFRSF11B	40
2558-51_3	SL000300	Beta-endorphin	b-Endorphin	P01189	5443	POMC	40
2567-5_6	SL003328	Complement factor I	Factor I	P05156	3426	CFI	0.005
2571-12_3	SL000045	Insulin-like growth factor-binding protein 3	IGFBP-3	P17936	3486	IGFBP3	0.005
2578-67_2	SL000038	C-C motif chemokine 2	MCP-1	P13500	6347	CCL2	40
2579-17_5	SL000527	Matrix metalloproteinase-9	MMP-9	P14780	4318	MMP9	0.005
2580-83_2	SL001796	Myeloperoxidase	Myeloperox idase	P05164	4353	MPO	1
2585-2_5	SL000546	Prolactin	PRL	P01236	5617	PRL	1
2597-8_3	SL000002	Vascular endothelial growth factor A	VEGF	P15692	7422	VEGFA	1

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2598-9_3	SL004126	Tumor necrosis factor receptor superfamily member 9	4-1BB	Q07011	3604	TNFRSF9	40
2599-51_2	SL003735	Tumor necrosis factor ligand superfamily member 9	4-1BB ligand	P41273	8744	TNFSF9	40
2602-2_2	SL001996	Angiopoietin-2	Angiopoietin-2	O15123	285	ANGPT2	1
2603-61_2	SL003738	T-lymphocyte activation antigen CD80	B7	P33681	941	CD80	40
2605-49_2	SL004180	Tumor necrosis factor receptor superfamily member 8	CD30	P28908	943	TNFRSF8	40
2607-54_2	SL004692	Cytokine receptor-like factor 1:Cardiotrophin-like cytokine factor 1 Complex	CLF-1/CLC Complex	O75462 Q9UBD9	9244 23529	CRLF1 CLCF1	40
2609-59_2	SL001777	Cystatin-C	Cystatin C	P01034	1471	CST3	0.005
2611-72_2	SL004136	Tyrosine-protein kinase receptor TYRO3	Dtk	Q06418	7301	TYRO3	40
2612-5_2	SL004759	Eukaryotic translation initiation factor 5	eIF-5	P55010	1983	EIF5	40
2614-28_2	SL004140	Ephrin-A4	Ephrin-A4	P52798	1945	EFNA4	40
2615-60_2	SL004141	Ephrin-A5	Ephrin-A5	P52803	1946	EFNA5	40
2616-23_18	SL000009	Receptor tyrosine-protein kinase erbB-2	ERBB2	P04626	2064	ERBB2	40
2617-56_35	SL002519	Receptor tyrosine-protein kinase erbB-3	ERBB3	P21860	2065	ERBB3	1
2618-10_2	SL003803	Receptor tyrosine-protein kinase erbB-4	ERBB4	Q15303	2066	ERBB4	40
2619-72_2	SL001890	Tumor-associated calcium signal transducer 2	GA733-1 protein	P09758	4070	TACSTD2	40
2620-4_2	SL003872	Interleukin-6 receptor subunit beta	gp130, soluble	P40189	3572	IL6ST	1
2622-18_1	SL004751	Heme oxygenase 2	HO-2	P30519	3163	HMOX2	40
2625-53_4	SL017612	Heat shock protein HSP 90-alpha/beta	HSP 90a/b	P07900 P08238		HSP90AA1 HSP90A	1
2630-12_2	SL004588	Interleukin-1 Receptor accessory protein	IL-1 R AcP	Q9NPH3	3556	IL1RAP	1
2631-50_2	SL004147	Interleukin-10 receptor subunit beta	IL-10 Rb	Q08334	3588	IL10RB	40
2632-5_2	SL004148	Interleukin-12 receptor subunit beta-1	IL-12 Rb1	P42701	3594	IL12RB1	40
2633-52_2	SL004149	Interleukin-13 receptor subunit alpha-1	IL-13 Ra1	P78552	3597	IL13RA1	1
2634-2_2	SL003307	Cytokine receptor common subunit gamma	IL-2 sRg	P31785	3561	IL2RG	40
2635-61_2	SL004646	Layilin	Layilin	Q6UX15	143903	LAYN	40
2636-10_2	SL000509	Tumor necrosis factor receptor superfamily member 3	Lymphotoxin b R	P36941	4055	LTBR	1

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2637-77_2	SL004579	Macrophage mannose receptor 1	Macrophage mannose receptor	P22897	4360	MRC1	1
2638-12_2	SL004153	Macrophage colony-stimulating factor 1 receptor	GM-CSF R	P07333	1436	CSF1R	0.005
2640-3_2	SL004637	Macrophage-stimulating protein receptor	MSP R	Q04912	4486	MST1R	40
2642-4_1	SL004760	Platelet-activating factor acetylhydrolase IB subunit beta	PAFAH beta subunit	P68402	5049	PAFAH1B2	40
2643-57_2	SL004183	Cadherin-3	P-Cadherin	P22223	1001	CDH3	1
2644-11_2	SL000551	Protein kinase C alpha type	PKC-A	P17252	5578	PRKCA	40
2645-54_1	SL000557	Protein kinase C zeta type	PKC-Z	Q05513	5590	PRKCZ	40
2647-66_2	SL003648	Rab GDP dissociation inhibitor beta	Rab GDP dissociation inhibitor beta	P50395	2665	GDI2	1
2649-77_2	SL003178	Intercellular adhesion molecule 3	sICAM-3	P32942	3385	ICAM3	40
2652-15_1	SL002506	Urokinase plasminogen activator surface receptor	suPAR	Q03405	5329	PLAUR	1
2654-19_1	SL001992	Tumor necrosis factor receptor superfamily member 1A	TNF sR-I	P19438	7132	TNFRSF1A	1
2658-27_1	SL004639	NT-3 growth factor receptor	TrkC	Q16288	4916	NTRK3	40
2665-26_2	SL004672	Tumor necrosis factor receptor superfamily member 17	BCMA	Q02223	608	TNFRSF17	1
2666-53_2	SL004081	Decorin	Bone proteoglycan II	P07585	1634	DCN	40
2668-70_2	SL000337	Calpain I	Calpain I	P07384 P04632	823 826	CAPN1 CAPNS1	1
2670-67_4	SL000383	Creatine kinase M-type	CK-MM	P06732	1158	CKM	1
2677-1_1	SL002644	Epidermal growth factor receptor	ERBB1	P00533	1956	EGFR	1
2681-23_2	SL000441	Hepatocyte growth factor	HGF	P14210	3082	HGF	40
2682-68_1	SL000450	60 kDa heat shock protein, mitochondrial	HSP 60	P10809	3329	HSPD1	1
2683-1_2	SL000456	Complement C3b, inactivated	iC3b	P01024	718	C3	0.005
2685-21_2	SL004676	Insulin-like growth factor-binding protein 5	IGFBP-5	P24593	3488	IGFBP5	0.005



Table S1

<u>SeqId</u>	<u>Somald</u>	<u>TargetFullName</u>	<u>Target</u>	<u>UniProt</u>	<u>EntrezGeneID</u>	<u>EntrezGeneSymbo</u>	<u>Dilution</u>
2686-67_2	SL005172	Insulin-like growth factor-binding protein 6	IGFBP-6	P24592	3489	IGFBP6	0.005
2687-2_1	SL001947	Melanoma-derived growth regulatory protein	MIA	Q16674	8190	MIA	1
2692-74_2	SL002528	Phospholipase A2, membrane associated	NPS-PLA2	P14555	5320	PLA2G2A	1
2693-20_3	SL000530	Oncostatin-M	OSM	P13725	5008	OSM	1
2695-25_1	SL001721	Platelet endothelial cell adhesion molecule	PECAM-1	P16284	5175	PECAM1	40
2696-87_2	SL004685	Persephin	Persephin	O60542	5623	PSPN	40
2697-7_2	SL003041	Platelet factor 4	PF-4	P02776	5196	PF4	0.005
2700-56_2	SL000049	Vitamin K-dependent protein S	Protein S	P07225	5627	PROS1	0.005
2704-74_1	SL004364	Tumor necrosis factor receptor superfamily member 13B	TACI	O14836	23495	TNFRSF13B	40
2705-5_2	SL003197	C-C motif chemokine 25	TECK	O15444	6370	CCL25	40
2706-69_2	SL000590	Thyroxine-binding globulin	Thyroxine-Binding Globulin	P05543	6906	SERPINA7	0.005
2708-54_2	SL004326	Tumor necrosis factor ligand superfamily member 18	TNFSF18	Q9UNG2	8995	TNFSF18	40
2711-6_2	SL005153	Ciliary neurotrophic factor receptor subunit alpha	CNTFR alpha	P26992	1271	CNTFR	40
2714-78_2	SL003334	Endothelial monocyte-activating polypeptide 2	EMAP-2	Q12904	9255	AIMP1	1
2715-25_2	SL005159	Erythropoietin receptor	EPO-R	P19235	2057	EPOR	40
2719-3_4	SL004591	Granulocyte colony-stimulating factor receptor	G-CSF-R	Q99062	1441	CSF3R	40
2723-9_2	SL005178	Interleukin-37	IL-1F7	Q9NZH6	27178	IL37	40
2728-62_2	SL000497	Laminin	Laminin	P25391, P07942, P1	284217 3912 3915	LAMA1 LAMB1 LA	40
2730-58_2	SL005199	MHC class I polypeptide-related sequence A	MICA	Q29983	4276	MICA	40
2731-29_2	SL000528	NADPH--cytochrome P450 reductase	NADPH-P450 Oxidoreductase	P16435	5447	POR	40
2732-58_3	SL005235	Homeobox protein NANOG	NANOG	Q9H9S0	79923	NANOG	40
2734-49_4	SL005206	Natural cytotoxicity triggering receptor 2	NKp44	O95944	9436	NCR2	40
2737-22_2	SL005236	Protein NOV homolog	NovH	P48745	4856	NOV	40
2741-22_2	SL005217	Sialic acid-binding Ig-like lectin 6	Siglec-6	O43699	946	SIGLEC6	40
2742-68_2	SL005218	Sialic acid-binding Ig-like lectin 7	Siglec-7	Q9Y286	27036	SIGLEC7	1

Table S1

SeqId	Somald	TargetFullName	Target	UniProt	EntrezGeneID	EntrezGeneSymbol	Dilution
2743-5_2	SL005220	Sonic hedgehog protein	Sonic Hedgehog	Q15465	6469	SHH	40
2744-57_2	SL000467	Immunoglobulin G	IgG	P01857	3500 3501 3502 3	IGHG1 IGHG2 IGHG3	0.005
2746-56_1	SL005226	Cytokine receptor-like factor 2	TSLP R	Q9HC73	64109	CRLF2	40
2747-3_2	SL005229	NKG2D ligand 3	ULBP-3	Q9BZM4	79465	ULBP3	40
2748-3_2	SL001938	Inhibin beta A chain	Activin A	P08476	3624	INHBA	40
2750-3_2	SL000019	Apolipoprotein A-I	Apo A-I	P02647	335	APOA1	0.005
2751-16_2	SL004589	Azurocidin	Azurocidin	P20160	566	AZU1	40
2752-62_2	SL004329	Growth/differentiation factor 5	BMP-14	P43026	8200	GDF5	40
2753-2_2	SL000309	Complement C1q subcomponent	C1q	P02745 P02746 P02747	712 713 714	C1QA C1QB C1QC	0.005
2754-50_2	SL000312	Complement C3	C3	P01024	718	C3	0.005
2755-8_2	SL003220	C3a anaphylatoxin des Arginine	C3adesArg	P01024	718	C3	0.005
2760-2_2	SL004752	Protein FAM107A	DRR1	O95990	11170	FAM107A	40
2761-49_2	SL004336	Fibroblast growth factor 18	FGF-18	O76093	8817	FGF18	40
2762-30_2	SL004337	Fibroblast growth factor 19	FGF-19	O95750	9965	FGF19	1
2763-66_2	SL004338	Fibroblast growth factor 20	FGF-20	Q9NP95	26281	FGF20	40
2764-20_2	SL003849	Fibroblast growth factor 9	FGF9	P31371	2254	FGF9	40
2765-4_3	SL021043	Growth/differentiation factor 11/8	GDF-11/8	O95390 O14793		GDF11 MSTN	1
2768-56_2	SL000440	Hemopexin	Hemopexin	P02790	3263	HPX	0.005
2770-51_2	SL003176	C-C motif chemokine 1	I-309	P22362	6346	CCL1	1
2771-35_2	SL000462	Insulin-like growth factor-binding protein 1	IGFBP-1	P08833	3484	IGFBP1	1
2773-50_2	SL001717	Interleukin-10	IL-10	P22301	3586	IL10	40
2774-10_3	SL000474	Interleukin-16	IL-16	Q14005	3603	IL16	1
2775-54_2	SL004352	Interleukin-17F	IL-17F	Q96PD4	112744	IL17F	40
2778-10_2	SL004347	Interleukin-22	IL-22	Q9GZX6	50616	IL22	1
2780-35_2	SL000496	Lactotransferrin	Lactoferrin	P02788	4057	LTF	0.005
2781-63_2	SL004356	C-C motif chemokine 4-like	LAG-1	Q8NHW4	388372	CCL4L1	40
2783-18_2	SL004355	C-C motif chemokine 3-like 1	LD78-beta	P16619	414062	CCL3L1	1
2785-15_2	SL000515	C-C motif chemokine 8	MCP-2	P80075	6355	CCL8	40
2788-55_1	SL000524	Stromelysin-1	MMP-3	P08254	4314	MMP3	1
2789-26_2	SL000525	Matrilysin	MMP-7	P09237	4316	MMP7	1
2790-54_2	SL003191	Neutrophil-activating peptide 2	NAP-2	P02775	5473	PPBP	0.005
2794-60_2	SL000581	Superoxide dismutase [Cu-Zn]	SOD	P00441	6647	SOD1	40
2796-62_2	SL000424	Fibrinogen	Fibrinogen	P02671 P02675 P02676	2243 2244 2266	FGA FGB FGG	1

Table S1

SeqId	Somald	TargetFullName	Target	UniProt	EntrezGeneID	EntrezGeneSymbo	Dilution
2797-56_2	SL000020	Apolipoprotein B	Apo B	P04114	338	APOB	40
2805-6_2	SL004415	Angiotensin-converting enzyme 2	ACE2	Q9BYF1	59272	ACE2	40
2806-49_2	SL004128	Activin receptor type-1B	Activin RIB	P36896	91	ACVR1B	40
2809-25_2	SL004625	A disintegrin and metalloproteinase with thrombospondin motifs 4	ADAMTS-4	O75173	9507	ADAMTS4	40
2811-27_1	SL001995	Angiopoietin-1	Angiopoietin-1	Q15389	284	ANGPT1	1
2813-11_2	SL006924	Agouti-related protein	ART	O00253	181	AGRP	40
2816-50_2	SL001902	Basal Cell Adhesion Molecule	BCAM	P50895	4059	BCAM	40
2819-23_2	SL002081	Cadherin-5	Cadherin-5	P33151	1003	CDH5	1
2822-56_2	SL004726	CD97 antigen	CD97	P48960	976	CD97	40
2823-7_1	SL004704	COMM domain-containing protein 7	COMMD7	Q86VX2	149951	COMMD7	40
2826-53_2	SL004644	Ectodysplasin-A, secreted form	EDA	Q92838	1896	EDA	40
2827-23_2	SL000427	Fractalkine	Fractalkine/ CX3CL-1	P78423	6376	CX3CL1	40
2828-82_2	SL004645	Kunitz-type protease inhibitor 1	HAI-1	O43278	6692	SPINT1	40
2829-19_2	SL006915	Interleukin-27	IL-27	Q8NEV9 Q14213	246778 10148	IL27 EBI3	40
2831-29_1	SL002763	Kallikrein-11	Kallikrein 11	Q9UBX7	11012	KLK11	40
2833-20_1	SL003800	Kallikrein-4	Kallikrein 4	Q9Y5K2	9622	KLK4	40
2834-54_1	SL003915	Kallikrein-8	kallikrein 8	O60259	11202	KLK8	40
2835-1_4	SL004301	X-ray repair cross-complementing protein 6	Ku70	P12956	2547	XRCC6	40
2836-68_2	SL000695	Neutrophil gelatinase-associated lipocalin	Lipocalin 2	P80188	3934	LCN2	0.005
2837-3_2	SL000134	Hepatocyte growth factor receptor	Met	P08581	4233	MET	1
2838-53_1	SL003332	Matrix metalloproteinase-17	MMP-17	Q9ULZ9	4326	MMP17	40
2839-2_1	SL004649	Tumor necrosis factor ligand superfamily member 4	OX40 Ligand	P23510	7292	TNFSF4	40
2841-13_2	SL004650	Secreted frizzled-related protein 3	sFRP-3	Q92765	2487	FRZB	1
2843-13_2	SL001897	Kunitz-type protease inhibitor 2	SPINT2	O43291	10653	SPINT2	40
2844-53_2	SL003199	Tyrosine-protein kinase receptor Tie-1, soluble	sTie-1	P35590	7075	TIE1	1
2846-24_2	SL000605	Ubiquitin+1, truncated mutation for UbB	Ubiquitin+1	P62979	6233	RPS27A	1
2848-2_2	SL004652	Wnt inhibitory factor 1	WIF-1	Q9Y5W5	11197	WIF1	40
2849-49_1	SL004768	Allograft inflammatory factor 1	AIF1	P55008	199	AIF1	1
2851-63_3	SL000320	C5a anaphylatoxin	C5a	P01031	727	C5	1

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SeqId	Somald	TargetFullName	Target	UniProt	EntrezGeneID	EntrezGeneSymbol	Dilution
2853-68_2	SL006911	Serine/threonine-protein kinase Chk1	CHK1	O14757	1111	CHEK1	40
2855-49_2	SL000409	Mitogen-activated protein kinase 3	ERK-1	P27361	5595	MAPK3	1
2857-70_2	SL006914	Glucocorticoid receptor	Glucocorticoid receptor	P04150	2908	NR3C1	1
2858-29_2	SL004725	Histone acetyltransferase type B catalytic subunit	Hat1	O14929	8520	HAT1	40
2859-69_2	SL004723	Histone deacetylase 8	HDAC8	Q9BY41	55869	HDAC8	1
2860-19_2	SL004718	Importin subunit alpha-1	Karyopherin alpha2	P52292	3838	KPNA2	1
2864-2_3	SL003793	Dual specificity mitogen-activated protein kinase 1	MEK1	Q02750	5604	MAP2K1	40
2865-77_2	SL004724	Histone acetyltransferase KAT6A	MOZ	Q92794	7994	KAT6A	40
2869-68_3	SL000554	Protein kinase C delta type	PKC-D	Q05655	5580	PRKCD	40
2870-29_2	SL004009	Ras-related C3 botulinum toxin substrate 1	RAC1	P63000	5879	RAC1	1
2871-73_2	SL006922	DNA repair protein RAD51 homolog 1	RAD51	Q06609	5888	RAD51	40
2875-15_2	SL006923	TATA-box-binding protein	TBP	P20226	6908	TBP	40
2876-74_2	SL004305	DNA topoisomerase 1	Topoisomerase I	P11387	7150	TOP1	40
2877-3_1	SL004306	SUMO-conjugating enzyme UBC9	UBC9	P63279	7329	UBE2I	1
2878-66_2	SL006372	Tyrosine-protein kinase Yes	YES	P07947	7525	YES1	40
2879-9_2	SL000248	Alpha-1-antichymotrypsin	alpha1-Antichymotrypsin	P01011	12	SERPINA3	0.005
2888-49_2	SL000323	Complement component C7	C7	P10643	730	C7	0.005
2889-37_2	SL002783	Cardiotrophin-1	Cardiotrophin-1	Q16619	1489	CTF1	40
2890-59_2	SL003303	C-C motif chemokine 28	CCL28	Q9NRJ3	56477	CCL28	40
2891-1_3	SL004330	B-cell receptor CD22	CD22	P20273	933	CD22	40
2900-53_3	SL003329	C-C motif chemokine 14	HCC-1	Q16627	6358	CCL14	1
2906-55_3	SL000480	Interleukin-4	IL-4	P05112	3565	IL4	40
2911-27_2	SL002621	Midkine	Midkine	P21741	4192	MDK	40
2913-1_2	SL003302	C-C motif chemokine 23	MPIF-1	P55773	6368	CCL23	1
2915-6_2	SL000131	Proliferating cell nuclear antigen	PCNA	P12004	5111	PCNA	40

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SeqId	Somald	TargetFullName	Target	UniProt	EntrezGeneID	EntrezGeneSymbo	Dilution
2917-3_2	SL002541	Tumor necrosis factor ligand superfamily member 11	sRANKL	O14788	8600	TNFSF11	40
2925-9_1	SL000006	Plasminogen activator inhibitor 1	PAI-1	P05121	5054	SERPINE1	1
2937-10_2	SL004668	Apolipoprotein E (isoform E3)	Apo E3	P02649	348	APOE	0.005
2938-55_2	SL004669	Apolipoprotein E (isoform E4)	Apo E4	P02649	348	APOE	0.005
2939-10_2	SL004670	Artemin	Artemin	Q5T4W7	9048	ARTN	40
2942-50_2	SL000396	Cytochrome c	Cytochrome c	P99999	54205	CYCS	1
2943-5_2	SL000398	Cytochrome P450 3A4	Cytochrome P450 3A4	P08684	1576	CYP3A4	0.005
2944-66_2	SL005156	Neuroblastoma suppressor of tumorigenicity 1	DAN	P41271	4681	NBL1	40
2945-25_1	SL000007	Estrogen receptor	ER	P03372	2099	ESR1	40
2946-52_2	SL003327	Complement factor D	Factor D	P00746	1675	CFD	0.005
2948-58_2	SL005168	Growth hormone receptor	Growth hormone receptor	P10912	2690	GHR	1
2949-6_2	SL004067	Group 10 secretory phospholipase A2	GX	O15496	8399	PLA2G10	40
2950-57_2	SL005171	Insulin-like growth factor-binding protein 4	IGFBP-4	P22692	3487	IGFBP4	0.005
2952-75_2	SL000047	Insulin-like growth factor I	IGF-I	P05019	3479	IGF1	0.005
2953-31_2	SL000506	Luteinizing hormone	Luteinizing hormone	P01215, P01229	1081 3972	CGA LHB	1
2960-66_2	SL003192	Properdin	Properdin	P27918	5199	CFP	0.005
2961-1_2	SL000048	Vitamin K-dependent protein C	Protein C	P04070	5624	PROC	0.005
2962-50_2	SL002561	Parathyroid hormone-related protein	PTHrP	P12272	5744	PTHLH	40
2966-65_2	SL004362	Stem Cell Growth Factor-beta	SCGF-beta	Q9Y240	6320	CLEC11A	1
2967-8_1	SL001720	Vascular cell adhesion protein 1	VCAM-1	P19320	7412	VCAM1	1
2968-61_1	SL004686	Tumor necrosis factor ligand superfamily member 15	TNFSF15	O95150	9966	TNFSF15	40
2969-11_1	SL004851	Serine/threonine-protein kinase receptor R3	ALK-1	P37023	94	ACVRL1	40
2970-60_2	SL000136	Amphiregulin	AREG	P15514	374	AREG	40
2972-57_2	SL004078	Bone morphogenetic protein 7	BMP-7	P18075	655	BMP7	40
2973-15_2	SL000668	Platelet glycoprotein 4	CD36 ANTIGEN	P16671	948	CD36	40
2974-61_2	SL004855	Contactin-1	contactin-1	Q12860	1272	CNTN1	1

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SeqId	Somald	TargetFullName	Target	UniProt	EntrezGeneID	EntrezGeneSymbo	Dilution
2975-19_2	SL002655	Connective tissue growth factor	CTGF	P29279	1490	CTGF	40
2976-58_2	SL004856	Desmoglein-1	Desmoglein-1	Q02413	1828	DSG1	1
2977-7_2	SL004872	Tumor necrosis factor receptor superfamily member EDAR	EDAR	Q9UNE0	10913	EDAR	40
2979-8_2	SL003169	C-X-C motif chemokine 5	ENA-78	P42830	6374	CXCL5	40
2981-9_3	SL005160	Endothelial cell-selective adhesion molecule	ESAM	Q96AP7	90952	ESAM	1
2982-82_2	SL005165	Galectin-4	Galectin-4	P56470	3960	LGALS4	40
2985-35_1	SL003173	Growth-regulated alpha protein	Gro-a	P09341	2919	CXCL1	1
2986-49_2	SL017610	Gro-beta/gamma	Gro-b/g	P19876 P19875		CXCL3 CXCL2	1
2987-37_3	SL005256	Histone H1.2	Histone H1.2	P16403	3006	HIST1H1C	40
2988-57_2	SL005170	Inducible T-cell costimulator	ICOS	Q9Y6W8	29851	ICOS	40
2991-9_2	SL001997	Interleukin-1 receptor type 1	IL-1 sRI	P14778	3554	IL1R1	40
2992-59_2	SL004850	Interleukin-17 receptor A	IL-17 sR	Q96F46	23765	IL17RA	1
2993-1_2	SL004861	Interleukin-18 receptor accessory protein	IL-18 Rb	Q95256	8807	IL18RAP	40
2994-71_2	SL004875	Interleukin-1 receptor-like 2	IL-1Rrp2	Q9HB29	8808	IL1RL2	40
2997-8_1	SL005193	Junctional adhesion molecule B	JAM-B	P57087	58494	JAM2	1
2998-53_2	SL005194	Junctional adhesion molecule C	JAM-C	Q9BX67	83700	JAM3	40
2999-6_2	SL005196	Limbic system-associated membrane protein	LSAMP	Q13449	4045	LSAMP	1
3000-66_1	SL004516	Mannose-binding protein C	MBL	P11226	4153	MBL2	1
3003-29_2	SL005205	Natural cytotoxicity triggering receptor 3	NKp30	O14931	259197	NCR3	40
3004-67_2	SL004862	Programmed cell death 1 ligand 2	PD-L2	Q9BQ51	80380	PDCD1LG2	40
3005-5_2	SL004939	Tyrosine-protein phosphatase non-receptor type 1	PTP-1B	P18031	5770	PTPN1	1
3007-7_2	SL005219	Sialic acid-binding Ig-like lectin 9	Siglec-9	Q9Y336	27180	SIGLEC9	1
3009-3_2	SL005059	Transforming growth factor beta receptor type 3	TGF- $\beta$ R III	Q03167	7049	TGFB3	1
3010-53_2	SL004687	Thymic stromal lymphopoietin	TSLP	Q969D9	85480	TSLP	40
3022-4_2	SL000384	Cytotoxic T-lymphocyte protein 4	CTLA-4	P16410	1493	CTLA4	40
3024-18_2	SL000250	Alpha-2-antiplasmin	$\alpha$ 2-Antiplasmin	P08697	5345	SERPINF2	0.005
3025-50_1	SL000004	Fibroblast growth factor 2	bFGF	P09038	2247	FGF2	40

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3026-5_2	SL000338	Calpastatin	Calpastatin	P20810	831	CAST	1
3028-36_2	SL003301	Ck-beta-8-1	Ck-b-8-1	P55773	6368	CCL23	40
3029-52_2	SL005157	CD209 antigen	DC-SIGN	Q9NNX6	30835	CD209	1
3030-3_2	SL005158	C-type lectin domain family 4 member M	DC-SIGNR	Q9H2X3	10332	CLEC4M	0.005
3032-11_2	SL000428	Follicle stimulating hormone	FSH	P01215, P01225	1081 2488	CGA FSHB	1
3033-57_1	SL005164	Galectin-2	Galectin-2	P05162	3957	LGALS2	40
3034-1_2	SL004271	Glial fibrillary acidic protein	GFAP	P14136	2670	GFAP	40
3035-80_2	SL004354	Interleukin-19	IL-19	Q9UHD0	29949	IL19	1
3037-62_1	SL001795	Interleukin-1 beta	IL-1b	P01584	3553	IL1B	1
3038-9_2	SL003326	C-X-C motif chemokine 11	I-TAC	O14625	6373	CXCL11	40
3040-59_1	SL000519	C-C motif chemokine 3	MIP-1a	P10147	6348	CCL3	40
3041-55_2	SL008416	C-type mannose receptor 2	MRC2	Q9UBG0	9902	MRC2	1
3042-7_2	SL000164	Myoglobin	Myoglobin	P02144	4151	MB	1
3043-49_2	SL000532	SPARC	ON	P09486	6678	SPARC	0.005
3044-3_2	SL003323	C-C motif chemokine 18	PARC	P55774	6362	CCL18	0.005
3045-72_2	SL002704	Pleiotrophin	PTN	P21246	5764	PTN	1
3046-31_1	SL004260	Resistin	resistin	Q9HD89	56729	RETN	1
3049-61_2	SL000603	Trypsin-1	Trypsin	P07477	5644	PRSS1	1
3050-7_2	SL000017	von Willebrand factor	vWF	P04275	7450	VWF	0.005
3052-8_2	SL000633	Tumor necrosis factor ligand superfamily member 6, soluble form	Fas ligand, soluble	P48023	356	FASLG	40
3053-49_2	SL004343	Fms-related tyrosine kinase 3 ligand	Flt3 ligand	P49771	2323	FLT3LG	40
3054-3_2	SL000437	Haptoglobin	Haptoglobin, Mixed Type	P00738	3240	HP	0.005
3055-54_2	SL003308	Interleukin-4 receptor subunit alpha	IL-4 sR	P24394	3566	IL4R	40
3056-11_1	SL005204	NKG2-D type II integral membrane protein	NKG2D	P26718	22914	KLRK1	40
3057-55_1	SL004689	WNT1-inducible-signaling pathway protein 1	WISP-1	O95388	8840	WISP1	0.005
3059-50_2	SL004327	Tumor necrosis factor ligand superfamily member 13B	BAFF	Q9Y275	10673	TNFSF13B	40
3060-43_2	SL000325	Complement component C9	C9	P02748	735	C9	0.005
3061-61_2	SL000343	Cathepsin B	Cathepsin B	P07858	1508	CTSB	1
3065-65_1	SL004339	Fibroblast growth factor 5	FGF-5	P12034	2250	FGF5	40
3066-12_1	SL003744	Galectin-3	Galectin-3	P17931	3958	LGALS3	1

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3067-67_1	SL005234	Growth/differentiation factor 9	GDF-9	O60383	2661	GDF9	40
3069-52_3	SL000468	Immunoglobulin M	IgM	P01871	3507 3512 50802	IGHM IGJ IGK@ IGL	0.005
3070-1_2	SL000478	Interleukin-2	IL-2	P60568	3558	IL2	40
3072-4_2	SL001718	Interleukin-13	IL-13	P35225	3596	IL13	40
3073-51_2	SL002508	Interleukin-18-binding protein	IL-18 BPa	O95998	10068	IL18BP	40
3074-6_2	SL003309	Lipopolysaccharide-binding protein	LBP	P18428	3929	LBP	0.005
3077-66_2	SL003324	Coagulation factor Xa	Coagulation Factor Xa	P00742	2159	F10	0.005
3078-1_2	SL002640	Placenta growth factor	PIGF	P49763	5228	PGF	40
3079-62_2	SL005152	Retinoic acid receptor responder protein 2	TIG2	Q99969	5919	RARRES2	0.005
3081-70_2	SL005227	NKG2D ligand 1	ULBP-1	Q9BZM6	80329	ULBP1	40
3082-9_2	SL005228	NKG2D ligand 2	ULBP-2	Q9BZM5	80328	ULBP2	40
3083-71_1	SL005233	Tumor necrosis factor receptor superfamily member 27	XEDAR	Q9HAV5	60401	EDA2R	40
3091-70_2	SL004771	Aurora kinase A	Aurora kinase A	O14965	6790	AURKA	40
3115-64_2	SL006918	Mitogen-activated protein kinase 1	MK01	P28482	5594	MAPK1	40
3122-6_2	SL003733	Diablo homolog, mitochondrial	SMAC	Q9NR28	56616	DIABLO	1
3132-1_1	SL004486	Vascular endothelial growth factor C	VEGF-C	P49767	7424	VEGFC	40
3143-3_1	SL002524	T-cell surface glycoprotein CD4	sCD4	P01730	920	CD4	40
3151-6_1	SL003305	Interleukin-2 receptor subunit alpha	IL-2 sRa	P01589	3559	IL2RA	40
3152-57_1	SL001800	Tumor necrosis factor receptor superfamily member 1B	TNF sR-II	P20333	7133	TNFRSF1B	1
3166-92_1	SL005215	Myeloid cell surface antigen CD33	Siglec-3	P20138	945	CD33	40
3168-8_2	SL004626	A disintegrin and metalloproteinase with thrombospondin motifs 5	ADAMTS-5	Q9UNA0	11096	ADAMTS5	40
3169-70_2	SL010368	Alpha-L-iduronidase	IDUA	P35475	3425	IDUA	1
3170-6_1	SL007261	Methionine aminopeptidase 2	AMPM2	P50579	10988	METAP2	40
3171-57_2	SL004469	Amyloid beta A4 protein	amyloid precursor protein	P05067	351	APP	0.005
3172-28_2	SL008956	Arylsulfatase B	ARSB	P15848	411	ARSB	1
3173-49_2	SL008611	N-acylethanolamine-hydrolyzing acid amidase	ASAHL	Q02083	27163	NAAA	40



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SeqId	Somald	TargetFullName	Target	UniProt	EntrezGeneID	EntrezGeneSymbo	Dilution
3174-2_1	SL008421	A disintegrin and metalloproteinase with thrombospondin motifs 1	ATS1	Q9UHI8	9510	ADAMTS1	40
3175-51_5	SL006610	A disintegrin and metalloproteinase with thrombospondin motifs 13	ATS13	Q76LX8	11093	ADAMTS13	1
3177-49_2	SL010369	Carbonic anhydrase 4	Carbonic Anhydrase IV	P22748	762	CA4	40
3178-5_2	SL007280	Dipeptidyl peptidase 1	CATC	P53634	1075	CTSC	40
3179-51_2	SL009213	Lysosomal protective protein	Cathepsin A	P10619	5476	CTSA	1
3181-50_2	SL004673	Cathepsin S	Cathepsin S	P25774	1520	CTSS	1
3182-38_2	SL010371	Ectonucleoside triphosphate diphosphohydrolase 1	CD39	P49961	953	ENTPD1	1
3184-25_2	SL000358	Coagulation factor VII	Coagulation Factor VII	P08709	2155	F7	0.005
3186-2_2	SL002525	Complement C2	C2	P06681	717	C2	0.005
3187-52_2	SL007284	Cysteine-rich secretory protein 3	CRIS3	P54108	10321	CRISP3	40
3189-61_2	SL010372	Enteropeptidase	Enterokinase	P98073	5651	TMPRSS15	40
3191-50_2	SL012783	WAP, kazal, immunoglobulin, kunitz and NTR domain-containing protein 1	WFKN1	Q96NZ8	117166	WFIKKN1	40
3192-3_2	SL002695	Cytosolic non-specific dipeptidase	Glutamate carboxypeptidase	Q96KP4	55748	CNDP2	40
3194-36_2	SL008759	Platelet glycoprotein VI	GPVI	Q9HCN6	51206	GP6	1
3195-50_2	SL000678	Granulysin	Granulysin	P22749	10578	GNLY	1
3196-6_2	SL008023	Hyaluronan and proteoglycan link protein 1	HPLN1	P10915	1404	HAPLN1	40
3197-70_2	SL007122	Insulin-degrading enzyme	IDE	P14735	3416	IDE	40
3198-4_1	SL008639	Iduronate 2-sulfatase	IDS	P22304	3423	IDS	1
3199-54_2	SL003916	Kallikrein-12	kallikrein 12	Q9UKR0	43849	KLK12	1
3200-49_2	SL003918	Kallikrein-13	kallikrein 13	Q9UKR3	26085	KLK13	40
3201-49_2	SL003863	Kallikrein-5	kallikrein 5	Q9Y337	25818	KLK5	0.005

Table S1

SeqId	Somald	TargetFullName	Target	UniProt	EntrezGeneID	EntrezGeneSymbo	Dilution
3202-28_2	SL010393	Kremen protein 2	KREM2	Q8NCW0	79412	KREMEN2	40
3204-2_2	SL007100	Leukotriene A-4 hydrolase	LKHA4	P09960	4048	LTA4H	40
3206-4_2	SL008904	Lymphatic vessel endothelial hyaluronic acid receptor 1	LYVE1	Q9Y5Y7	10894	LYVE1	0.005
3208-2_4	SL006992	Matrilin-3	MATN3	O15232	4148	MATN3	40
3209-69_1	SL005437	Matrix extracellular phosphoglycoprotein	MEPE	Q9NQ76	56955	MEPE	40
3210-1_2	SL010374	Methionine aminopeptidase 1	METAP1	P53582	23173	METAP1	40
3212-30_3	SL010375	Neutral ceramidase	ASAH2	Q9NR71	56624	ASAH2	40
3213-65_2	SL000640	Nidogen-1	Nidogen	P14543	4811	NID1	1
3216-2_2	SL005797	Polymeric immunoglobulin receptor	PIGR	P01833	5284	PIGR	1
3217-74_2	SL004457	Glia-derived nexin	Protease nexin I	P07093	5270	SERPINE2	0.005
3220-40_2	SL010378	Proto-oncogene tyrosine-protein kinase receptor Ret	RET	P07949	5979	RET	1
3221-54_1	SL003770	Secreted frizzled-related protein 1	SARP-2	Q8N474	6422	SFRP1	40
3222-11_2	SL010379	Semaphorin-3A	Semaphorin 3A	Q14563	10371	SEMA3A	40
3232-28_2	SL004118	Tartrate-resistant acid phosphatase type 5	TrATPase	P13686	54	ACP5	1
3234-23_2	SL010390	Coiled-coil domain-containing protein 80	URB	Q76M96	151887	CCDC80	1
3235-50_2	SL010391	WAP, Kazal, immunoglobulin, Kunitz and NTR domain-containing protein 2	WFKN2	Q8TEU8	124857	WFIKKN2	40
3280-49_2	SL004661	Aggrecan core protein	Aggrecan	P16112	176	ACAN	40
3281-19_1	SL006803	Angiopoietin-related protein 3	ANGL3	Q9Y5C1	27329	ANGPTL3	40
3283-21_1	SL006544	Transforming growth factor-beta-induced protein ig-h3	BGH3	Q15582	7045	TGFBI	1
3284-75_1	SL007804	Biglycan	BGN	P21810	633	BGN	40
3285-23_2	SL000310	Complement C1r subcomponent	C1r	P00736	715	C1R	0.005
3289-19_2	SL010449	Carbonic anhydrase-related protein 10	Carbonic Anhydrase X	Q9NS85	56934	CA10	40
3290-50_2	SL008773	CD109 antigen	CD109	Q6YHK3	135228	CD109	40
3291-30_2	SL002706	Low affinity immunoglobulin epsilon Fc receptor	CD23	P06734	2208	FCER2	1
3292-75_1	SL010450	CD48 antigen	CD48	P09326	962	CD48	1

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3293-2_4	SL006108	CD5 antigen-like	CD5L	O43866	922	CD5L	0.005
3294-55_2	SL010451	Cryptic protein	CFC1	P0CG37	55997	CFC1	40
3296-92_2	SL008623	Contactin-2	CNTN2	Q02246	6900	CNTN2	40
3298-52_2	SL010454	Contactin-4	Contactin-4	Q8I WV2	152330	CNTN4	1
3299-29_2	SL010455	Contactin-5	Contactin-5	O94779	53942	CNTN5	40
3302-58_1	SL007049	Cystatin-F	CYTF	O76096	8530	CST7	1
3303-23_2	SL004438	Cystatin-M	Cystatin M	Q15828	1474	CST6	1
3305-6_1	SL010457	Delta-like protein 4	DLL4	Q9NR61	54567	DLL4	1
3309-2_2	SL010459	Low affinity immunoglobulin gamma Fc region receptor II-a	FCG2A	P12318	2212	FCGR2A	1
3310-62_1	SL010460	Low affinity immunoglobulin gamma Fc region receptor II-b	FCG2B	P31994	2213	FCGR2B	1
3311-27_1	SL008609	Low affinity immunoglobulin gamma Fc region receptor III-B	FCG3B	O75015	2215	FCGR3B	0.005
3312-64_1	SL010461	High affinity immunoglobulin gamma Fc receptor I	FCGR1	P12314	2209	FCGR1A	40
3313-21_2	SL006542	Ficolin-2	FCN2	Q15485	2220	FCN2	1
3314-74_2	SL004858	GDNF family receptor alpha-1	GFRA-1	P56159	2674	GFRA1	40
3315-15_1	SL010463	Glypican-2	GPC2	Q8N158	221914	GPC2	40
3316-58_1	SL004466	Heparin cofactor 2	Heparin cofactor II	P05546	3053	SERPIND1	0.005
3317-33_1	SL004860	Serine protease HTRA2, mitochondrial	HTRA2	O43464	27429	HTRA2	40
3320-49_2	SL005087	Insulin-like growth factor-binding protein 7	IGFBP-7	Q16270	3490	IGFBP7	1
3321-2_2	SL007385	Interleukin-24	IL24	Q13007	11009	IL24	40
3322-52_2	SL010464	Leucine-rich repeats and immunoglobulin-like domains protein 3	LRIG3	Q6UXM1	121227	LRIG3	40
3323-37_1	SL004610	Low-density lipoprotein receptor-related protein 8	LRP8	Q14114	7804	LRP8	40
3324-51_1	SL007674	T-lymphocyte surface antigen Ly-9	LY9	Q9HBG7	4063	LY9	40
3325-2_2	SL010465	Matrilin-2	MATN2	O00339	4147	MATN2	1
3326-58_2	SL004805	Cell adhesion molecule 1	Nectin-like protein 2	Q9BY67	23705	CADM1	40
3327-27_1	SL007673	Netrin-4	NET4	Q9HB63	59277	NTN4	1
3329-14_2	SL004515	Peptidoglycan recognition protein 1	PGRP-S	O75594	8993	PGLYRP1	1

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3331-8_1	SL010468	RGM domain family member B	RGMB	Q6NW40	285704	RGMB	1
3332-57_1	SL010469	Hemojuvelin	RGM-C	Q6ZVN8	148738	HFE2	1
3336-50_1	SL001998	Tissue factor pathway inhibitor	TFPI	P10646	7035	TFPI	1
3339-33_1	SL007206	Thrombospondin-2	TSP2	P35442	7058	THBS2	1
3340-53_1	SL007207	Thrombospondin-4	TSP4	P35443	7060	THBS4	1
3341-33_4	SL006892	Tyrosine-protein kinase ABL1	ABL1	P00519	25	ABL1	40
3343-1_4	SL005574	Aminoacylase-1	Aminoacylase-1	Q03154	95	ACY1	1
3344-60_4	SL000272	Antithrombin-III	Antithrombin III	P01008	462	SERPINC1	0.005
3346-72_2	SL010520	Aurora kinase B	AURKB	Q96GD4	9212	AURKB	40
3347-9_2	SL002792	beta-adrenergic receptor kinase 1	BARK1	P25098	156	ADRBK1	40
3348-49_2	SL003994	Bone morphogenetic protein 1	BMP-1	P13497	649	BMP1	1
3350-53_2	SL010491	Calcium/calmodulin-dependent protein kinase type II subunit alpha	CAMK2A	Q9UQM7	815	CAMK2A	40
3351-1_1	SL010492	Calcium/calmodulin-dependent protein kinase type II subunit beta	CAMK2B	Q13554	816	CAMK2B	40
3352-80_3	SL010288	Carbonic anhydrase 6	Carbonic anhydrase 6	P23280	765	CA6	1
3356-50_1	SL004868	Carbonic anhydrase 7	Carbonic anhydrase VII	P43166	766	CA7	40
3357-67_2	SL010495	Cyclin-dependent kinase 2:Cyclin-A2 complex	CDK2/cyclin A	P24941 P20248	1017 890	CDK2 CCNA2	40
3358-51_2	SL010496	Cyclin-dependent kinase 5:Cyclin-dependent kinase 5 activator 1 complex	CDK5/p35	Q00535 Q15078	1020 8851	CDK5 CDK5R1	40
3359-11_2	SL010522	Cyclin-dependent kinase 8:Cyclin-C complex	CDK8/cyclin C	P49336 P24863	1024 892	CDK8 CCNC	40
3360-50_4	SL003726	Serine/threonine-protein kinase Chk2	Chk2	O96017	11200	CHEK2	40
3361-26_2	SL010610	C-type lectin domain family 4 member K	CLC4K	Q9UJ71	50489	CD207	40
3362-61_2	SL009400	Chordin-like protein 1	CRDL1	Q9BU40	91851	CHRD1	1
3363-31_4	SL004781	Tyrosine-protein kinase CSK	CSK	P41240	1445	CSK	1

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SeqId	Somald	TargetFullName	Target	UniProt	EntrezGeneID	EntrezGeneSymbo	Dilution
3364-76_2	SL006910	Cathepsin L2	Cathepsin V	O60911	1515	CTSV	40
3365-7_2	SL010612	Dickkopf-related protein 4	Dkk-4	Q9UBT3	27121	DKK4	1
3366-51_2	SL006550	Extracellular matrix protein 1	ECM1	Q16610	1893	ECM1	0.005
3367-8_3	SL006777	Fetuin-B	FETUB	Q9UGM5	26998	FETUB	0.005
3373-5_2	SL004654	Granzyme H	Granzyme H	P20718	2999	GZMH	40
3374-49_2	SL010499	Tyrosine-protein kinase HCK	HCK	P08631	3055	HCK	40
3376-49_2	SL010613	Interleukin-17 receptor D	IL-17 RD	Q8NFM7	54756	IL17RD	40
3378-49_2	SL000064	Kallikrein-7	Kallikrein 7	P49862	5650	KLK7	0.005
3379-29_1	SL007228	Protein kinase C iota type	KPCI	P41743	5584	PRKCI	40
3381-24_2	SL010500	Tyrosine-protein kinase Lyn, isoform B	LYNB	P07948	4067	LYN	1
3387-1_2	SL010508	Serine/threonine-protein kinase PAK 3	PAK3	O75914	5063	PAK3	40
3388-58_2	SL010510	Serine/threonine-protein kinase PAK 7	PAK7	Q9P286	57144	PAK7	40
3389-7_2	SL000550	Plasma serine protease inhibitor	PCI	P05154	5104	SERPINA5	0.005
3390-72_2	SL010512	PIK3CA/PIK3R1	PIK3CA/PIK3R1	P42336 P27986	5290 5295	PIK3CA PIK3R1	40
3391-10_2	SL007250	Phosphatidylinositol 4,5-bisphosphate 3-kinase catalytic subunit gamma isoform	PK3CG	P48736	5294	PIK3CG	1
3392-68_2	SL017614	RAC-alpha/beta/gamma serine/threonine-protein kinase	PKB a/b/g	P31749 P31751 Q9Y	207 208 10000	AKT1 AKT2 AKT3	1
3394-81_2	SL005258	Serine/threonine-protein kinase PLK1	PLK-1	P53350	5347	PLK1	40
3396-54_2	SL000565	Renin	Renin	P00797	5972	REN	1
3397-7_4	SL010616	Tyrosine-protein phosphatase non-receptor type 11	SHP-2	Q06124	5781	PTPN11	40
3399-31_2	SL007560	Stabilin-2	STAB2	Q8WWQ8	55576	STAB2	1
3400-49_2	SL007747	Serine/threonine-protein kinase TBK1	TBK1	Q9UHD2	29110	TBK1	40
3401-8_2	SL005261	Tyrosine-protein phosphatase non-receptor type 2	TCPTP	P17706	5771	PTPN2	40
3403-1_2	SL010617	Tryptase beta-2	TPSB2	P20231	64499	TPSB2	1
3404-51_2	SL010619	Tryptase gamma	TPSG1	Q9NRR2	25823	TPSG1	40
3405-6_2	SL010529	Ubiquitin-fold modifier-conjugating enzyme 1	UFC1	Q9Y3C8	51506	UFC1	40
3412-7_1	SL000104	Apoptosis regulator Bcl-2	Bcl-2	P10415	596	BCL2	40
3413-50_2	SL003703	Bcl-2-related protein A1	BFL1	Q16548	597	BCL2A1	1

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SeqId	Somald	TargetFullName	Target	UniProt	EntrezGeneID	EntrezGeneSymbo	Dilution
3414-40_2	SL006374	Cytoplasmic tyrosine-protein kinase BMX	BMX	P51813	660	BMX	40
3415-61_2	SL004660	Bone sialoprotein 2	BSP	P21815	3381	IBSP	40
3416-2_2	SL010521	Tyrosine-protein kinase BTK	BTK	Q06187	695	BTK	1
3418-12_2	SL010490	Calcium/calmodulin-dependent protein kinase type 1D	CAMK1D	Q8IU85	57118	CAMK1D	1
3419-49_2	SL010493	Calcium/calmodulin-dependent protein kinase type II subunit delta	CAMK2D	Q13557	817	CAMK2D	40
3420-21_2	SL004869	Carbonic anhydrase 13	Carbonic anhydrase XIII	Q8N1Q1	377677	CA13	40
3421-54_2	SL004635	Tumor necrosis factor ligand superfamily member 8	CD30 Ligand	P32971	944	TNFSF8	40
3422-4_2	SL010494	Cyclin-dependent kinase 1:G2/mitotic-specific cyclin-B1 complex	CDK1/cyclin B	P06493 P14635	983 891	CDC2 CCNB1	40
3423-59_2	SL005250	Chymase	Chymase	P23946	1215	CMA1	40
3427-63_2	SL007324	Casein kinase II subunit alpha	CSK21	P68400	1457	CSNK2A1	40
3431-54_2	SL004137	Ephrin type-A receptor 1	EphA1	P21709	2041	EPHA1	1
3432-21_2	SL010498	Ephrin type-A receptor 3	EPHA3	P29320	2042	EPHA3	40
3434-34_1	SL010349	Fibronectin Fragment 3	FN1.3	P02751	2335	FN1	0.005
3435-53_2	SL010348	Fibronectin Fragment 4	FN1.4	P02751	2335	FN1	0.005
3437-80_3	SL004636	Receptor-type tyrosine-protein kinase FLT3	Flt-3	P36888	2322	FLT3	1
3438-10_2	SL009324	Follistatin-related protein 3	FSTL3	O95633	10272	FSTL3	1
3440-7_2	SL004298	Granzyme A	granzyme A	P12544	3001	GZMA	40
3441-64_2	SL017188	Glycogen synthase kinase-3 alpha/beta	GSK-3 alpha/beta	P49840 P49841	2931 2932	GSK3A GSK3B	40
3443-61_2	SL010523	Homeodomain-interacting protein kinase 3	HIPK3	Q9H422	10114	HIPK3	40
3445-53_2	SL004151	Interleukin-15 receptor subunit alpha	IL-15 Ra	Q13261	3601	IL15RA	40
3446-7_2	SL004152	Interleukin-18 receptor 1	IL-18 Ra	Q13478	8809	IL18R1	1
3447-64_2	SL000039	Interleukin-8	IL-8	P10145	3576	CXCL8	40
3448-13_2	SL004125	Insulin receptor	IR	P06213	3643	INSR	40
3449-58_2	SL004876	Kallistatin	Kallistatin	P29622	5267	SERPINA4	0.005
3450-4_2	SL001797	Kallikrein-6	Kallikrein 6	Q92876	5653	KLK6	1
3452-17_2	SL006916	Tyrosine-protein kinase Lck	LCK	P06239	3932	LCK	40

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SeqId	Somald	TargetFullName	Target	UniProt	EntrezGeneID	EntrezGeneSymbo	Dilution
3453-87_2	SL006917	Tyrosine-protein kinase Lyn	LYN	P07948	4067	LYN	40
3457-57_1	SL005084	Periostin	Periostin	Q15063	10631	POSTN	40
3459-49_2	SL004155	Platelet-derived growth factor receptor beta	PDGF Rb	P09619	5159	PDGFRB	40
3461-58_1	SL009089	Brevican core protein	PGCB	Q96GW7	63827	BCAN	40
3466-8_2	SL010513	cAMP-dependent protein kinase catalytic subunit alpha	PRKACA	P17612	5566	PRKACA	40
3469-74_1	SL010515	Ribosomal protein S6 kinase alpha-3	RPS6KA3	P51812	6197	RPS6KA3	40
3470-1_2	SL001945	E-selectin	sE-Selectin	P16581	6401	SELE	1
3471-49_1	SL010517	Serine/threonine-protein kinase 16	STK16	O75716	8576	STK16	1
3472-40_2	SL000582	Baculoviral IAP repeat-containing protein 5	Survivin	O15392	332	BIRC5	40
3473-78_2	SL005224	Thrombopoietin Receptor	Thrombopoietin Receptor	P40238	4352	MPL	40
3474-19_2	SL002705	Thrombospondin-1	Thrombospondin-1	P07996	7057	THBS1	0.005
3477-63_2	SL005225	High affinity nerve growth factor receptor	TrkA	P04629	4914	NTRK1	40
3479-71_2	SL006480	Trypsin-3	TRY3	P35030	5646	PRSS3	40
3480-7_1	SL008122	Dual specificity protein phosphatase 3	DUS3	P51452	1845	DUSP3	40
3481-87_1	SL011073	Xaa-Pro aminopeptidase 1	XPNPEP1	Q9NQW7	7511	XPNPEP1	40
3484-60_2	SL000271	Angiotensinogen	Angiotensinogen	P01019	183	AGT	0.005
3485-28_2	SL000283	Beta-2-microglobulin	b2-Microglobulin	P61769	567	B2M	0.005
3486-58_2	SL000299	Fibroblast growth factor 1	b-ECGF	P05230	2246	FGF1	40
3487-32_2	SL003167	C-X-C motif chemokine 13	BLC	O43927	10563	CXCL13	40
3488-64_2	SL000342	Catalase	Catalase	P04040	847	CAT	1
3489-9_2	SL004331	Ciliary neurotrophic factor	CNTF	P26441	1270	CNTF	40
3494-71_3	SL004335	Fibroblast growth factor 17	FGF-17	O60258	8822	FGF17	40
3495-15_2	SL003172	C-X-C motif chemokine 6	GCP-2	P80162	6372	CXCL6	40
3497-13_2	SL002075	Interferon alpha-2	IFN-aA	P01563	3440	IFNA2	40
3499-77_2	SL004350	Interleukin-17B	IL-17B	Q9UHF5	27190	IL17B	40
3503-4_2	SL003179	Integrin alpha-I: beta-1 complex	Integrin a1b1	P56199, P05556	3672 3688	ITGA1 ITGB1	1

Table S1

SeqId	Somald	TargetFullName	Target	UniProt	EntrezGeneID	EntrezGeneSymbo	Dilution
3504-58_2	SL004536	Hepcidin	LEAP-1	P81172	57817	HAMP	1
3505-6_2	SL000507	Lymphotoxin alpha1:beta2	Lymphotoxin a1/b2	P01374, Q06643	4049 4050	LTA LTB	40
3506-49_1	SL000508	Lymphotoxin alpha2:beta1	Lymphotoxin a2/b1	P01374, Q06643	4049 4050	LTA LTB	40
3508-78_3	SL003187	C-C motif chemokine 22	MDC	O00626	6367	CCL22	1
3509-1_1	SL003190	C-C motif chemokine 15	MIP-5	Q16663	6359	CCL15	1
3514-49_2	SL004008	Myeloblastin	Proteinase-3	P24158	5657	PRTN3	1
3516-60_2	SL004712	Stromal cell-derived factor 1	SDF-1	P48061	6387	CXCL12	1
3518-54_2	SL004015	Carboxypeptidase B2	TAFI	Q96IY4	1361	CPB2	0.005
3519-3_2	SL003196	C-C motif chemokine 17	TARC	Q92583	6361	CCL17	1
3520-58_1	SL000089	Transforming growth factor beta-3	TGF-b3	P10600	7043	TGFB3	40
3521-16_2	SL000589	Thyroid Stimulating Hormone	TSH	P01215 P01222	1081 12372	CGA TSHB	40
3522-57_1	SL000615	Vasoactive Intestinal Peptide	Vasoactive Intestinal Peptide	P01282	7432	VIP	40
3534-14_2	SL003862	CD40 ligand	CD40 ligand, soluble	P29965	959	CD40LG	40
3535-84_1	SL004367	Dickkopf-related protein 1	DKK1	O94907	22943	DKK1	1
3538-26_1	SL009216	Aromatic-L-amino-acid decarboxylase	dopa decarboxylase	P20711	1644	DDC	40
3554-24_1	SL004258	Adiponectin	Adiponectin	Q15848	9370	ADIPOQ	0.005
3580-25_8	SL000249	Alpha-1-antitrypsin	a1-Antitrypsin	P01009	5265	SERPINA1	0.005
3581-53_3	SL000251	Alpha-2-HS-glycoprotein	a2-HS-Glycoprotein	P02765	197	AHSG	0.005
3583-54_4	SL005392	Arylsulfatase A	Arylsulfatase A	P15289	410	ARSA	1
3585-54_4	SL009341	Basigin	BASI	P35613	682	BSG	1



Table S1

SeqId	Somald	TargetFullName	Target	UniProt	EntrezGeneID	EntrezGeneSymbo	Dilution
3587-53_2	SL007056	Bone morphogenetic protein 10	BMP10	O95393	27302	BMP10	1
3591-51_3	SL004865	Cadherin-6	Cadherin-6	P55285	1004	CDH6	1
3592-4_3	SL010489	Calcium/calmodulin-dependent protein kinase type 1	CAMK1	Q14012	8536	CAMK1	1
3593-72_3	SL003711	Caspase-3	Caspase-3	P42574	836	CASP3	40
3594-6_5	SL007121	Cathepsin E	CATE	P14091	1510	CTSE	40
3600-2_3	SL006029	Chitotriosidase-1	Chitotriosidase-1	Q13231	1118	CHIT1	1
3601-54_3	SL008936	Neural cell adhesion molecule L1-like protein	CHL1	O00533	10752	CHL1	1
3603-60_5	SL007640	C-type lectin domain family 7 member A	CLC7A	Q9BXN2	64581	CLEC7A	1
3605-77_4	SL011049	Mannan-binding lectin serine protease 1	MASP3	P48740	5648	MASP1	1
3606-2_5	SL004120	Discoidin domain-containing receptor 2	Discoidin domain receptor 2	Q16832	4921	DDR2	1
3607-71_1	SL009412	Dickkopf-related protein 3	DKK3	Q9UBP4	27122	DKK3	1
3608-12_5	SL008916	Dipeptidyl peptidase 2	DPP2	Q9UHL4	29952	DPP7	1
3611-70_4	SL004060	Endothelin-converting enzyme 1	Endothelin-converting enzyme 1	P42892	1889	ECE1	1
3612-6_4	SL004845	Ephrin type-B receptor 4	EphB4	P54760	2050	EPHB4	1
3613-62_5	SL010462	Ficolin-1	FCN1	O00602	2219	FCN1	1
3616-3_5	SL008504	N-acetylglucosamine-6-sulfatase	GNS	P15586	2799	GNS	40
3617-80_4	SL006512	Hepatocyte growth factor activator	HGFA	Q04756	3083	HGFAC	0.005
3620-67_2	SL007806	Interleukin-22 receptor subunit alpha-1	IL22RA1	Q8N6P7	58985	IL22RA1	40
3622-33_4	SL008909	Legumain	LGMN	Q99538	5641	LGMN	1
3623-84_4	SL007059	Lymphocyte antigen 86	LY86	O95711	9450	LY86	1
3624-3_4	SL011069	Serine protease 27	Marapsin	Q9BQR3	83886	PRSS27	1
3627-71_4	SL010376	Membrane metallo-endopeptidase-like 1	MMEL2	Q495T6	79258	MMEL1	1
3628-3_4	SL010501	Dual specificity mitogen-activated protein kinase 2	MP2K2	P36507	5605	MAP2K2	1
3629-60_4	SL006805	Serine/threonine-protein kinase MRCK beta	MRCKB	Q9Y5S2	9578	CDC42BPB	1
3630-27_4	SL004804	Cell adhesion molecule 3	Nectin-like protein 1	Q8N126	57863	CADM3	1
3633-70_5	SL008193	Nidogen-2	NID2	Q14112	22795	NID2	1

Table S1

SeqId	Somald	TargetFullName	Target	UniProt	EntrezGeneID	EntrezGeneSymbo	Dilution
3634-5_4	SL005491	Opioid-binding protein/cell adhesion molecule	OBCAM	Q14982	4978	OPCML	1
3635-76_4	SL010530	OCIA domain-containing protein 1	OCAD1	Q9NX40	54940	OCIAD1	1
3636-37_4	SL007327	Oxidized low-density lipoprotein receptor 1	OLR1	P78380	4973	OLR1	1
3640-14_3	SL005263	alpha-2-macroglobulin receptor-associated protein	RAP	P30533	4043	LRPAP1	1
3642-4_1	SL008588	SLAM family member 5	SLAF5	Q9UIB8	8832	CD84	1
3643-90_2	SL008760	SLIT and NTRK-like protein 1	SLIK1	Q96PX8	114798	SLITRK1	1
3644-5_4	SL010381	Dickkopf-like protein 1	Soggy-1	Q9UK85	27120	DKKL1	1
3646-7_4	SL010518	Tyrosine-protein kinase Tec	TEC	P42680	7006	TEC	1
3647-49_4	SL018625	Toll-like receptor 4:Lymphocyte antigen 96 complex	TLR4:MD-2 complex	O00206 Q9Y6Y9	7099 23643	TLR4 LY96	1
3651-50_5	SL003201	Vascular endothelial growth factor receptor 2	VEGF sR2	P35968	3791	KDR	1
3654-27_5	SL007531	BMP-binding endothelial regulator protein	BMPER	Q8N8U9	168667	BMPER	40
3656-9_1	SL004864	Cadherin-12	Cadherin-12	P55289	1010	CDH12	40
3657-74_3	SL004720	Calcineurin subunit B type 1	Calcineurin B a	P63098	5534	PPP3R1	1
3666-17_4	SL006830	Complement factor H-related protein 5	complement factor H-related 5	Q9BXR6	81494	CFHR5	0.005
3676-15_3	SL003679	Cation-independent mannose-6-phosphate receptor	IGF-II receptor	P11717	3482	IGF2R	1
3681-87_3	SL003919	Kallikrein-14	kallikrein 14	Q9P0G3	43847	KLK14	1
3684-78_3	SL004580	Macrophage scavenger receptor types I and II	Macrophage scavenger receptor	P21757	4481	MSR1	40
3685-53_1	SL010466	Membrane frizzled-related protein	MFRP	Q9BY79	83552	MFRP	1
3707-12_2	SL000254	Serum albumin	Albumin	P02768	213	ALB	0.005
3708-62_1	SL000252	Alpha-2-macroglobulin	a2-Macroglobulin	P01023	2	A2M	1
3709-4_2	SL000617	Alanine aminotransferase 1	ALT	P24298	2875	GPT	1

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SeqId	Somald	TargetFullName	Target	UniProt	EntrezGeneID	EntrezGeneSymbo	Dilution
3710-49_2	SL000268	Angiostatin	Angiostatin	P00747	5340	PLG	1
3714-49_2	SL000382	Creatine kinase M-type:Creatine kinase B-type heterodimer	CK-MB	P12277 P06732	1152 1158	CKB CKM	1
3719-2_2	SL000076	Cyclin-dependent kinase inhibitor 1B	p27Kip1	P46527	1027	CDKN1B	40
3723-1_2	SL000306	Brain natriuretic peptide 32	BNP-32	P16860	4879	NPPB	40
3727-35_1	SL011509	Peptide YY	PYY	P10082	5697	PYY	40
3728-52_2	SL000570	Secretin	Secretin	P09683	6343	SCT	40
3730-81_2	SL011448	Tumor necrosis factor receptor superfamily member 4	TNR4	P43489	7293	TNFRSF4	40
3738-54_4	SL002684	Macrophage colony-stimulating factor 1	CSF-1	P09603	1435	CSF1	40
3758-68_3	SL003974	Activated Protein C	Activated Protein C	P04070	5624	PROC	1
3761-4_2	SL000027	Prostaglandin G/H synthase 2	COX-2	P35354	5743	PTGS2	40
3766-51_4	SL004304	Syntaxin-1A	STX1a	Q16623	6804	STX1A	40
3773-15_4	SL003200	Angiotensin-1 receptor, soluble	sTie-2	Q02763	7010	TEK	40
3795-6_2	SL004642	Disintegrin and metalloproteinase domain-containing protein 9	ADAM 9	Q13443	8754	ADAM9	40
3796-79_2	SL007642	Angiotensin-related protein 4	ANGL4	Q9BY76	51129	ANGPTL4	40
3797-1_1	SL000638	Cadherin-2	Cadherin-2	P19022	1000	CDH2	40
3798-71_1	SL005508	Carbonic anhydrase 9	Carbonic anhydrase 9	Q16790	768	CA9	40
3799-11_2	SL004867	Carbonic anhydrase 3	Carbonic anhydrase III	P07451	761	CA3	1
3800-71_2	SL000377	Creatine kinase B-type	CK-BB	P12277	1152	CKB	40
3802-50_1	SL007888	Cystatin-S	Cystatin-S	P01036	1472	CST4	40
3803-10_2	SL008382	Cystatin-D	CYTD	P28325	1473	CST5	40
3805-16_2	SL010458	Endothelial cell-specific molecule 1	Endocan	Q9NQ30	11082	ESM1	1
3806-55_1	SL004844	Ephrin type-A receptor 5	EphA5	P54756	2044	EPHA5	40
3807-1_2	SL007651	Fibroblast growth factor 23	FGF23	Q9GZV9	8074	FGF23	40
3808-76_2	SL003990	Fibroblast growth factor receptor 2	FGFR-2	P21802	2263	FGFR2	40
3809-1_2	SL004063	Fibroblast growth factor receptor 3	FGFR-3	P22607	2261	FGFR3	40
3810-50_2	SL006912	Tyrosine-protein kinase Fgr	FGR	P09769	2268	FGR	40

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SeqId	Somald	TargetFullName	Target	UniProt	EntrezGeneID	EntrezGeneSymbo	Dilution
3813-3_2	SL006913	Tyrosine-protein kinase Fyn	FYN	P06241	2534	FYN	40
3815-14_1	SL007620	Interleukin-12 receptor subunit beta-2	IL-12 RB2	Q99665	3595	IL12RB2	40
3817-18_1	SL007358	Protein kinase C theta type	KPCT	Q04759	5588	PRKCQ	40
3820-68_2	SL010503	MAP kinase-activated protein kinase 2	MAPK2	P49137	9261	MAPKAPK2	40
3821-28_1	SL010504	MAP kinase-activated protein kinase 5	MAPK5	Q8IW41	8550	MAPKAPK5	40
3822-54_2	SL004765	MAP kinase-activated protein kinase 3	MAPKAPK3	Q16644	7867	MAPKAPK3	1
3823-9_1	SL010505	Megakaryocyte-associated tyrosine-protein kinase	MATK	P42679	4145	MATK	40
3825-18_2	SL010502	Mitogen-activated protein kinase 8	MK08	P45983	5599	MAPK8	40
3827-22_1	SL010509	Serine/threonine-protein kinase PAK 6	PAK6	Q9NQU5	56924	PAK6	40
3828-54_2	SL011071	Platelet-derived growth factor C	PDGF-CC	Q9NRA1	56034	PDGFC	40
3831-21_1	SL003761	Phosphatidylinositol 3,4,5-trisphosphate 3-phosphatase and dual-specificity protein phosphatase PTEN	pTEN	P60484	5728	PTEN	40
3832-51_1	SL010514	Protein-tyrosine kinase 6	PTK6	Q13882	5753	PTK6	40
3835-11_2	SL004492	Toll-like receptor 2	TLR2	O60603	7097	TLR2	40
3836-51_2	SL010528	Ubiquitin-fold modifier 1	UFM1	P61960	51569	UFM1	40
3839-60_2	SL011629	AH receptor-interacting protein	AIP	O00170	9049	AIP	40
3844-2_1	SL004823	Peptidyl-prolyl cis-trans isomerase A	Cyclophilin A	P62937	5478	PPIA	1
3845-51_2	SL011530	Dynein light chain roadblock-type 1	DLRB1	Q9NP97	83658	DYNLRB1	40
3847-56_2	SL011532	Persulfide dioxygenase ETHE1, mitochondrial	ETHE1	O95571	23474	ETHE1	1
3848-14_2	SL003785	Glyceraldehyde-3-phosphate dehydrogenase	GAPDH, liver	P04406	2597	GAPDH	1
3852-19_2	SL000449	DnaJ homolog subfamily B member 1	HSP 40	P25685	3337	DNAJB1	40
3853-56_1	SL008102	Malate dehydrogenase, cytoplasmic	MDHC	P40925	4190	MDH1	1
3854-24_1	SL011631	Nascent polypeptide-associated complex subunit alpha	NACA	Q13765	4666	NACA	40
3855-56_1	SL004919	Peroxiredoxin-1	Peroxiredoxin-1	Q06830	5052	PRDX1	1
3858-5_1	SL008063	Low molecular weight phosphotyrosine protein phosphatase	PPAC	P24666	52	ACP1	40
3859-50_2	SL010973	Proteasome subunit alpha type-1	PSA1	P25786	5682	PSMA1	40
3860-7_2	SL005630	Proteasome subunit alpha type-6	PSA6	P60900	5687	PSMA6	40

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SeqId	Somald	TargetFullName	Target	UniProt	EntrezGeneID	EntrezGeneSymbo	Dilution
3864-5_2	SL011528	40S ribosomal protein S7	RS7	P62081	6201	RPS7	40
3865-53_1	SL006919	Ribosomal protein S6 kinase alpha-5	RSK-like protein kinase	O75582	9252	RPS6KA5	40
3866-7_2	SL011529	Ribosome maturation protein SBDS	SBDS	Q9Y3A5	51119	SBDS	40
3867-49_1	SL011630	Seizure 6-like protein 2	SE6L2	Q6UXD5	26470	SEZ6L2	40
3868-8_1	SL011533	Small glutamine-rich tetratricopeptide repeat-containing protein alpha	SGTA	O43765	6449	SGTA	40
3872-2_1	SL005679	Translationally-controlled tumor protein	TCTP	P13693	7178	TPT1	1
3873-51_2	SL000588	Thyroid peroxidase	TMA	P07202	7173	TPO	40
3874-8_1	SL008157	Ubiquitin-conjugating enzyme E2 L3	UB2L3	P68036	7332	UBE2L3	40
3875-62_1	SL011549	AT-rich interactive domain-containing protein 3	AARI3A	Q99856	1820	ARID3A	40
3877-67_2	SL004938	Calcium/calmodulin-dependent protein kinase kinase 1	CaMKK alpha	Q8N5S9	84254	CAMKK1	1
3879-50_1	SL011232	Hsp90 co-chaperone Cdc37	CDC37	Q16543	11140	CDC37	40
3881-49_2	SL003753	Dynein light chain 1, cytoplasmic	DLC8	P63167	8655	DYNLL1	40
3887-90_2	SL010927	Importin subunit beta-1	IMB1	Q14974	3837	KPNB1	40
3888-8_1	SL009628	Inhibitor of growth protein 1	ING1	Q9UK53	3621	ING1	1
3889-64_2	SL006132	Lamin-B1	Lamin-B1	P20700	4001	LMNB1	40
3890-8_2	SL000493	L-lactate dehydrogenase B chain	LDH-H 1	P07195	3945	LDHB	0.005
3891-56_1	SL009629	Methyl-CpG-binding domain protein 4	MBD4	O95243	8930	MBD4	40
3893-64_1	SL001905	Mesothelin	Mesothelin	Q13421	10232	MSLN	40
3894-15_2	SL005629	N-acetyl-D-glucosamine kinase	NAGK	Q9UJ70	55577	NAGK	1
3896-5_2	SL004820	Phosphoglycerate mutase 1	Phosphoglycerate mutase 1	P18669	5223	PGAM1	40
3897-61_1	SL011709	Pyridoxal phosphate phosphatase	PLPP	Q96GD0	57026	PDXP	40
3898-5_2	SL007266	26S proteasome non-ATPase regulatory subunit 7	PSD7	P51665	5713	PSMD7	40
3902-21_2	SL008808	S-phase kinase-associated protein 1	SKP1	P63208	6500	SKP1	1
3903-49_2	SL005372	Sorting nexin-4	Sorting nexin 4	O95219	8723	SNX4	40
3905-62_1	SL008143	Ubiquitin-conjugating enzyme E2 N	UBE2N	P61088	7334	UBE2N	1

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SeqId	Somald	TargetFullName	Target	UniProt	EntrezGeneID	EntrezGeneSymbo	Dilution
4122-12_2	SL004119	Epithelial discoidin domain-containing receptor	discoidin domain receptor 1	Q08345	780	DDR1	40
4123-60_2	SL003171	Fibroblast growth factor 4	FGF-4	P08620	2249	FGF4	40
4124-24_2	SL000451	Heat shock 70 kDa protein 1A	HSP 70	P0DMV8	3303	HSPA1A	40
4125-52_2	SL003680	Advanced glycosylation end product-specific receptor, soluble	sRAGE	Q15109	177	AGER	1
4126-22_1	SL004511	Bactericidal permeability-increasing protein	BPI	P17213	671	BPI	1
4127-75_1	SL000322	Complement component C6	C6	P13671	729	C6	0.005
4128-27_2	SL003104	C-C motif chemokine 24	Eotaxin-2	O00175	6369	CCL24	40
4129-72_1	SL000414	Complement factor B	Factor B	P00751	629	CFB	0.005
4130-71_1	SL004340	Fibroblast growth factor 6	FGF-6	P10767	2251	FGF6	40
4131-72_2	SL000426	Fibronectin	Fibronectin	P02751	2335	FN1	0.005
4132-27_2	SL000674	Follistatin	FST	P19883	10468	FST	40
4133-54_2	SL004068	Granzyme B	Granzyme B	P10144	3002	GZMB	40
4134-4_2	SL000138	Heparin-binding EGF-like growth factor	HB-EGF	Q99075	1839	HBEGF	40
4135-84_2	SL000461	Immunoglobulin E	IgE	P01854	3497 50802 3535	IGHE IGK@ IGL@	1
4136-40_2	SL004353	Interleukin-17D	IL-17D	Q8TAD2	53342	IL17D	40
4137-57_2	SL004351	Interleukin-25	IL-17E	Q9H293	64806	IL25	40
4138-25_2	SL004346	Interleukin-20	IL-20	Q9NYY1	50604	IL20	40
4139-71_2	SL001943	Interleukin-6 receptor subunit alpha	IL-6 sRa	P08887	3570	IL6R	1
4140-3_2	SL000483	Interleukin-7	IL-7	P13232	3574	IL7	40
4141-79_1	SL003183	C-X-C motif chemokine 10	IP-10	P02778	3627	CXCL10	40
4143-74_2	SL003186	Lymphotactin	Lymphotactin	P47992	6375	XCL1	40
4144-13_1	SL000517	C-C motif chemokine 13	MCP-4	Q99616	6357	CCL13	40
4145-58_2	SL004359	Neurotrophin-3	Neurotrophin-3	P20783	4908	NTF3	40
4146-58_2	SL004360	Neurotrophin-4	Neurotrophin-5	P34130	4909	NTF4	40
4148-49_2	SL002755	Pappalysin-1	PAPP-A	Q13219	5069	PAPPA	1
4149-8_2	SL000537	Platelet-derived growth factor subunit B	PDGF-BB	P01127	5155	PDGFB	1
4150-75_2	SL000540	Plasmin	Plasmin	P00747	5340	PLG	40

Table S1

<u>SeqId</u>	<u>Somald</u>	<u>TargetFullName</u>	<u>Target</u>	<u>UniProt</u>	<u>EntrezGeneID</u>	<u>EntrezGeneSymbol</u>	<u>Dilution</u>
4151-6_2	SL000541	Plasminogen	Plasminogen	P00747	5340	PLG	0.005
4152-58_2	SL000545	Plasma kallikrein	Prekallikrein	P03952	3818	KLKB1	0.005
4153-11_2	SL018548	Alpha-1-antichymotrypsin complex	alpha-1-antichymotrypsin complex	P01011	12	SERPINA3	0.005
4154-57_2	SL000560	P-selectin	P-Selectin	P16109	6403	SELP	1
4155-3_2	SL003198	Tenascin	Tenascin	P24821	3371	TNC	1
4156-74_1	SL000088	Transforming growth factor beta-2	TGF-b2	P61812	7042	TGFB2	40
4157-2_1	SL000586	Thrombin	Thrombin	P00734	2147	F2	1
4158-54_2	SL000613	Urokinase-type plasminogen activator	uPA	P00749	5328	PLAU	40
4159-130_1	SL000415	Complement factor H	Factor H	P08603	3075	CFH	0.005
4160-49_1	SL000124	72 kDa type IV collagenase	MMP-2	P08253	4313	MMP2	1
4162-54_2	SL000601	Serotransferrin	Transferrin	P02787	7018	TF	0.005
4163-5_2	SL002093	Histone H2A.z	Histone H2A.z	P0C055	3015	H2AFZ	40
4165-2_1	SL000587	Thyroglobulin	Thyroglobulin	P01266	7038	TG	40
4179-57_3	SL017611	14-3-3 protein family	14-3-3	P31946, P62258, P6	7529, 7531, 7532,	YWHAB, YWHAE, YW	1
4184-43_3	SL008378	Eukaryotic translation initiation factor 4E-binding protein 2	4EBP2	Q13542	1979	EIF4EBP2	40
4187-49_2	SL000247	6-phosphogluconate dehydrogenase, decarboxylating	6-Phosphogluconate dehydrogenase	P52209	5226	PGD	1
4188-1_2	SL003658	Aflatoxin B1 aldehyde reductase member 2	Aflatoxin B1 aldehyde reductase	O43488	8574	AKR7A2	40
4192-10_2	SL008039	Alcohol dehydrogenase [NADP(+)]	AK1A1	P14550	10327	AKR1A1	1

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4194-26_3	SL011769	Acidic leucine-rich nuclear phosphoprotein 32 family member B	AN32B	Q92688	10541	ANP32B	1
4203-50_2	SL004920	Cofilin-1	Cofilin-1	P23528	1072	CFL1	1
4209-60_2	SL004757	Vacuolar protein sorting-associated protein VTA homolog	DRG-1	Q9NP79	51534	VTA1	1
4212-5_3	SL012188	Epidermal growth factor receptor substrate 15-like 1	EP15R	Q9UBC2	58513	EPS15L1	40
4217-49_3	SL004795	3-hydroxyacyl-CoA dehydrogenase type-2	ERAB	Q99714	3028	HSD17B10	40
4220-39_2	SL005588	Tyrosine-protein kinase Fer	FER	P16591	2241	FER	40
4224-7_2	SL007022	Heterogeneous nuclear ribonucleoprotein Q	HNRPQ	O60506	10492	SYNCRIP	40
4230-1_2	SL011211	Eukaryotic translation initiation factor 4 gamma 2	IF4G2	P78344	1982	EIF4G2	40
4232-19_2	SL003304	Insulin-like growth factor 1 receptor	IGF-I sR	P08069	3480	IGF1R	40
4234-8_2	SL004146	Interleukin-1 receptor-like 1	IL-1 R4	Q01638	9173	IL1RL1	1
4237-70_3	SL011770	Leucine carboxyl methyltransferase 1	LCMT1	Q9UIC8	51451	LCMT1	40
4238-4_2	SL012168	Protein lin-7 homolog B	LIN7B	Q9HAP6	64130	LIN7B	40
4240-31_2	SL002650	Pyruvate kinase PKM	M2-PK	P14618	5315	PKM2	1
4245-80_2	SL001999	E3 ubiquitin-protein ligase Mdm2	MDM2	Q00987	4193	MDM2	40
4246-40_2	SL004154	Neural cell adhesion molecule L1	NCAM-L1	P32004	3897	L1CAM	1
4249-64_2	SL004921	Nucleoside diphosphate kinase B	NDP kinase B	P22392	4831	NME2	40
4250-23_3	SL006268	NSFL1 cofactor p47	NSF1C	Q9UNZ2	55968	NSFL1C	40
4254-6_2	SL011768	NudC domain-containing protein 3	NUDC3	Q8IVD9	23386	NUDCD3	40
4258-15_2	SL008331	Proliferation-associated protein 2G4	PA2G4	Q9UQ80	5036	PA2G4	1
4261-55_2	SL005493	Serum paraoxonase/arylesterase 1	paraoxonase 1	P27169	5444	PON1	40
4267-81_3	SL011772	Pescadillo homolog	PESC	O00541	23481	PES1	40
4271-75_2	SL006705	Prefoldin subunit 5	PFD5	Q99471	5204	PFDN5	40
4272-46_2	SL000539	Glucose-6-phosphate isomerase	PHI	P06744	2821	GPI	1
4276-10_2	SL005358	Phosphatidylethanolamine-binding protein 1	prostatic binding protein	P30086	5037	PEBP1	1



Table S1

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4278-14_3	SL004901	Protein disulfide-isomerase	Protein disulfide-isomerase	P07237	5034	P4HB	40
4280-47_2	SL008865	Proteasome subunit alpha type-2	PSA2	P25787	5683	PSMA2	40
4282-3_2	SL005034	GTP-binding nuclear protein Ran	RAN	P62826	5901	RAN	1
4284-18_3	SL011535	RNA-binding protein 39	RBM39	Q14498	9584	RBM39	40
4292-5_3	SL011202	Alpha-soluble NSF attachment protein	SNAA	P54920	8775	NAPA	1
4294-16_2	SL006088	Sphingosine kinase 1	Sphingosine kinase 1	Q9NYA1	8877	SPHK1	40
4297-62_3	SL005115	Spondin-1	Spondin-1	Q9HCB6	10418	SPON1	1
4301-58_2	SL000057	Thymidine kinase, cytosolic	Thymidine kinase	P04183	7083	TK1	40
4304-18_2	SL006698	Ligand-dependent nuclear receptor corepressor like protein	transcription factor MLR1, isoform CRA_b	Q8N3X6	254251	LCORL	40
4306-4_2	SL003655	Transketolase	Transketolase	P29401	7086	TKT	1
4309-59_3	SL004812	Triosephosphate isomerase	Triosephosphate isomerase	P60174	7167	TPI1	1
4314-12_2	SL011809	dCTP pyrophosphatase 1	XTP3A	Q9H773	79077	DCTPP1	1
4318-12_3	SL004940	Tyrosine-protein phosphatase non-receptor type 6	PTP-1C	P29350	5777	PTPN6	40
4322-28_3	SL013489	Protein amnionless	AMNLS	Q9BXJ7	81693	AMN	40
4324-33_2	SL008516	Cystatin-SA	CYTT	P09228	1470	CST2	40
4328-2_2	SL013490	Brother of CDO	BOC	Q9BWV1	91653	BOC	40
4332-6_2	SL013488	C-type lectin domain family 1 member B	CLC1B	Q9P126	51266	CLEC1B	1
4336-2_1	SL000572	Serum amyloid A-1 protein	SAA	P0DJ18	6288	SAA1	1
4337-49_2	SL000051	C-reactive protein	CRP	P02741	1401	CRP	1
4342-10_3	SL002922	Intercellular adhesion molecule 1	sICAM-1	P05362	3383	ICAM1	1
4355-13_1	SL007752	Death-associated protein kinase 2	DAPK2	Q9UIK4	23604	DAPK2	1

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4359-87_1	SL013570	Dual specificity tyrosine-phosphorylation-regulated kinase 3	DYRK3	O43781	8444	DYRK3	1
4374-45_2	SL003869	Growth/differentiation factor 15	MIC-1	Q99988	9518	GDF15	1
4389-2_1	SL007003	Desert hedgehog protein N-product	DHH	O43323	50846	DHH	40
4392-54_2	SL005161	Fibroblast growth factor 12	FGF-12	P61328	2257	FGF12	40
4393-3_1	SL004334	Fibroblast growth factor 16	FGF-16	O43320	8823	FGF16	40
4394-71_2	SL014308	Fibroblast growth factor 8 isoform A	FGF-8A	P55075	2253	FGF8	40
4396-54_1	SL004348	Interferon lambda-1	IFN-lambda 1	Q8IU54	282618	IFNL1	40
4397-26_2	SL004349	Interferon lambda-2	IFN-lambda 2	Q8IZJ0	282616	IFNL2	40
4407-10_1	SL005202	Hepatocyte growth factor-like protein	MSP	P26927	4485	MST1	0.005
4413-3_2	SL001888	Antileukoproteinase	SLPI	P03973	6590	SLPI	1
4414-69_2	SL004484	Pulmonary surfactant-associated protein D	SP-D	P35247	6441	SFTPD	1
4420-7_2	SL009988	Disintegrin and metalloproteinase domain-containing protein 12	ADAM12	O43184	8038	ADAM12	40
4423-77_2	SL003674	Bcl-2-like protein 1	BCL2-like 1 protein	Q07817	598	BCL2L1	40
4428-1_2	SL013988	Carbohydrate sulfotransferase 2	CHST2	Q9Y4C5	9435	CHST2	40
4429-51_2	SL014130	Carbohydrate sulfotransferase 6	CHST6	Q9GZX3	4166	CHST6	40
4430-44_3	SL006713	Collectin-11	Collectin Kidney 1	Q9BWP8	78989	COLEC11	1
4435-66_2	SL009045	Ectonucleotide pyrophosphatase/phosphodiesterase family member 7	ENPP7	Q6UWV6	339221	ENPP7	40
4436-1_2	SL014093	Ectonucleoside triphosphate diphosphohydrolase 3	ENTP3	O75355	956	ENTPD3	40
4437-56_3	SL014028	Ectonucleoside triphosphate diphosphohydrolase 5	ENTP5	O75356	957	ENTPD5	1
4440-15_2	SL014088	Fc receptor-like protein 3	FCRL3	Q96P31	115352	FCRL3	40
4449-67_3	SL007024	Gremlin-1	GREM1	O60565	26585	GREM1	40
4450-26_2	SL009791	Heterogeneous nuclear ribonucleoprotein A/B	hnRNP A/B	Q99729	3182	HNRNPAB	1
4452-9_2	SL014096	Leucine-rich repeat transmembrane neuronal protein 1	LRRT1	Q86UE6	347730	LRRTM1	40

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4453-83_3	SL014108	Leucine-rich repeat transmembrane neuronal protein 3	LRRT3	Q86VH5	347731	LRRTM3	40
4455-89_2	SL006523	Lactadherin	MFGM	Q08431	4240	MFGE8	40
4459-68_2	SL014069	Proprotein convertase subtilisin/kexin type 7	PCSK7	Q16549	9159	PCSK7	40
4460-8_2	SL006998	3-phosphoinositide-dependent protein kinase 1	PDPK1	O15530	5170	PDPK1	40
4464-10_2	SL001753	Sialoadhesin	Sialoadhesin	Q9BZZ2	6614	SIGLEC1	40
4467-49_2	SL005488	SPARC-like protein 1	SPARCL1	Q14515	8404	SPARCL1	1
4468-21_2	SL014029	Sphingosine kinase 2	SPHK2	Q9NRA0	56848	SPHK2	40
4469-78_2	SL007502	Carbohydrate sulfotransferase 15	ST4S6	Q7LFX5	51363	CHST15	1
4471-50_2	SL008945	Protein-glutamine gamma-glutamyltransferase E	TGM3	Q08188	7053	TGM3	40
4472-5_2	SL004908	Tropomyosin beta chain	Tropomyosin 2	P07951	7169	TPM2	40
4474-19_2	SL004070	Ubiquitin	Ubiquitin	P62979	6233	RPS27A	1
4476-22_2	SL010519	Tyrosine-protein kinase ZAP-70	ZAP70	P43403	7535	ZAP70	1
4479-14_2	SL000308	Plasma protease C1 inhibitor	C1-Esterase Inhibitor	P05155	710	SERPING1	1
4480-59_2	SL000314	Complement C3b	C3b	P01024	718	C3	40
4481-34_2	SL000316	Complement C4	C4	P0C0L4, P0C0L5	720 721	C4A C4B	0.005
4482-66_2	SL000321	Complement C5b-C6 complex	C5b, 6 Complex	P01031,P13671	727 729	C5 C6	0.005
4487-1_1	SL001691	Fibroblast growth factor 7	FGF7	P21781	2252	FGF7	40
4490-65_2	SL005187	Interleukin-3 receptor subunit alpha	IL-3 Ra	P26951	3563	IL3RA	40
4491-4_2	SL005188	Interleukin-5 receptor subunit alpha	IL-5 Ra	Q01344	3568	IL5RA	40
4493-92_1	SL000470	Interleukin-11	IL-11	P20809	3589	IL11	40
4495-33_2	SL017189	Kininogen-1	Kininogen, HMW	P01042	3827	KNG1	0.005
4496-60_2	SL000522	Macrophage metalloelastase	MMP-12	P39900	4321	MMP12	40
4498-62_2	SL003764	Neural cell adhesion molecule 1, 120 kDa isoform	NCAM-120	P13591	4684	NCAM1	1
4499-21_1	SL000535	Platelet-derived growth factor subunit A	PDGF-AA	P04085	5154	PDGFA	1
4500-50_2	SL004363	Stem cell growth factor-alpha	SCGF-alpha	Q9Y240	6320	CLEC11A	1

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4533-76_2	SL012740	A disintegrin and metalloproteinase with thrombospondin motifs 15	ATS15	Q8TE58	170689	ADAMTS15	40
4534-10_2	SL012822	Brain-specific serine protease 4	BSSP4	Q9GZN4	64063	PRSS22	40
4535-50_2	SL008644	ADP-ribosyl cyclase/cyclic ADP-ribose hydrolase 2	BST1	Q10588	683	BST1	40
4540-11_2	SL009768	Chromobox protein homolog 5	CBX5	P45973	23468	CBX5	40
4541-49_2	SL014092	Cell adhesion molecule-related/down-regulated by oncogenes	CDON	Q4KMG0	50937	CDON	1
4542-24_2	SL001896	Clusterin	Clusterin	P10909	1191	CLU	0.005
4543-65_2	SL014048	Collagen alpha-1(XXIII) chain	CONA1	Q86Y22	91522	COL23A1	40
4544-4_3	SL004708	Connective tissue-activating peptide III	CTAP-III	P02775	5473	PPBP	0.005
4545-53_3	SL006197	Mitochondrial import inner membrane translocase subunit TIM14	DnaJ homolog	Q96DA6	131118	DNAJC19	40
4546-27_3	SL008822	Adhesion G protein-coupled receptor E2	EMR2	Q9UHX3	30817	ADGRE2	1
4547-59_2	SL014071	Leucine-rich repeat transmembrane protein FLRT1	FLRT1	Q9NZU1	23769	FLRT1	40
4548-4_2	SL005575	Galactoside 3(4)-L-fucosyltransferase	Fucosyltransferase 3	P21217	2525	FUT3	40
4549-78_2	SL014008	Alpha-(1,3)-fucosyltransferase 5	FUT5	Q11128	2527	FUT5	40
4551-72_3	SL014094	Adhesion G-protein coupled receptor G5	GP114	Q8IZF4	221188	ADGRG5	40
4553-65_3	SL014009	Hepatoma-derived growth factor-related protein 2	HDGR2	Q7Z4V5	84717	HDGFRP2	40
4556-10_2	SL013548	Interleukin-34	IL-34	Q6ZMJ4	146433	IL34	40
4557-61_2	SL014111	Kin of IRRE-like protein 3	KIRR3	Q8IZU9	84623	KIRREL3	40
4559-64_2	SL013969	Kynureninase	KYNU	Q16719	8942	KYNU	40
4561-65_2	SL004299	Baculoviral IAP repeat-containing protein 7 Isoform beta	Livin B	Q96CA5	79444	BIRC7	40
4562-1_2	SL012457	Neurexophilin-1	NXPH1	P58417	30010	NXPH1	1
4563-61_2	SL012108	1-phosphatidylinositol 4,5-bisphosphate phosphodiesterase gamma-1	PLCG1	P19174	5335	PLCG1	40
4564-2_2	SL006406	Plexin-C1	PLXC1	O60486	10154	PLXNC1	1
4566-24_3	SL013989	R-spondin-2	RSPO2	Q6UXX9	340419	RSPO2	40
4567-82_2	SL014468	SH2 domain-containing protein 1A	SH21A	O60880	4068	SH2D1A	40
4568-17_2	SL014070	SLIT and NTRK-like protein 5	SLIK5	O94991	26050	SLITRK5	40

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4569-52_2	SL014091	VPS10 domain-containing receptor SorCS2	SORC2	Q96PQ0	57537	SORCS2	40
4588-1_2	SL011499	Pancreatic hormone	PH	P01298	5539	PPY	40
4673-13_2	SL000087	Interleukin-6	IL-6	P05231	3569	IL6	40
4693-72_2	SL008085	3-hydroxyisobutyrate dehydrogenase, mitochondrial	3HIDH	P31937	11112	HIBADH	40
4697-59_2	SL001726	Granulocyte-macrophage colony-stimulating factor	GM-CSF	P04141	1437	CSF2	40
4703-87_2	SL000597	Lymphotoxin-alpha	TNF-b	P01374	4049	LTA	40
4706-17_2	SL010830	Protein 4.1	41	P11171	2035	EPB41	1
4708-3_2	SL004253	Estradiol 17-beta-dehydrogenase 1	17-beta-HSD 1	P14061	3292	HSD17B1	1
4712-28_2	SL005361	Apolipoprotein D	Apo D	P05090	347	APOD	1
4717-55_2	SL000479	Interleukin-3	IL-3	P08700	3562	IL3	40
4718-5_2	SL007869	Peptidyl-prolyl cis-trans isomerase B	PPIB	P23284	5479	PPIB	1
4719-58_2	SL003524	Protein disulfide-isomerase A3	Protein disulfide isomerase A3	P30101	2923	PDIA3	1
4721-54_2	SL006119	Trefoil factor 3	TFF3	Q07654	7033	TFF3	1
4763-31_3	SL004742	Afamin	Afamin	P43652	173	AFM	0.005
4769-10_3	SL008590	Olfactomedin-4	Olfactomedin-4	Q6UX06	10562	OLFM4	40
4771-10_3	SL012754	Acid sphingomyelinase-like phosphodiesterase 3a	ASM3A	Q92484	10924	SMPDL3A	1
4774-62_3	SL016129	Protein FAM107B	FAM107B	Q9H098	83641	FAM107B	40
4775-34_3	SL005572	Gelsolin	Gelsolin	P06396	2934	GSN	0.005
4785-30_3	SL000347	Corticosteroid-binding globulin	CBG	P08185	866	SERPINA6	40
4786-58_3	SL007871	UMP-CMP kinase	Cytidylate kinase	P30085	51727	CMPK1	1
4801-13_3	SL007153	Lactoperoxidase	PERL	P22079	4025	LPO	40
4807-13_3	SL008072	Collagen alpha-1(VIII) chain	CO8A1	P27658	1295	COL8A1	40
4811-33_3	SL004739	Inter-alpha-trypsin inhibitor heavy chain H4	ITI heavy chain H4	Q14624	3700	ITIH4	0.005
4815-25_3	SL016128	Thioredoxin domain-containing protein 12	TXD12	O95881	51060	TXNDC12	1

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4829-43_6	SL001737	14-3-3 protein sigma	STRATIFIN	P31947	2810	SFN	1
4831-4_2	SL002823	L-Selectin	sL-Selectin	P14151	6402	SELL	0.005
4832-75_2	SL004156	Tumor necrosis factor receptor superfamily member 10A	TRAIL R1	O00220	8797	TNFRSF10A	40
4834-61_2	SL002654	Ephrin type-A receptor 2	Epithelial cell kinase	P29317	1969	EPHA2	40
4840-73_1	SL001729	Granulocyte colony-stimulating factor	G-CSF	P09919	1440	CSF3	40
4842-62_2	SL000070	Glypican-3	Glypican 3	P51654	2719	GPC3	40
4851-25_1	SL000125	Interleukin-1 alpha	IL-1a	P01583	3552	IL1A	40
4859-6_1	SL004080	Bone morphogenetic protein receptor type-1A	BMPR1A	P36894	657	BMPR1A	40
4862-63_1	SL004133	Bone morphogenetic protein receptor type-2	BMP RII	Q13873	659	BMPR2	40
4866-59_2	SL004160	BDNF/NT-3 growth factors receptor	TrkB	Q16620	4915	NTRK2	1
4867-15_2	SL003310	Vascular endothelial growth factor A, isoform 121	VEGF121	P15692	7422	VEGFA	40
4874-3_1	SL000003	Angiogenin	Angiogenin	P03950	283	ANG	0.005
4876-32_1	SL000357	Coagulation factor IX	Coagulation Factor IX	P00740	2158	F9	0.005
4878-3_1	SL000360	Coagulation Factor X	Coagulation Factor X	P00742	2159	F10	0.005
4880-21_1	SL007756	Growth/differentiation factor 2	GDF2	Q9UK05	2658	GDF2	40
4883-56_2	SL000021	Insulin	Insulin	P01308	3630	INS	40
4886-3_1	SL000516	C-C motif chemokine 7	MCP-3	P80098	6354	CCL7	40
4889-82_1	SL009951	Protein Wnt-7a	WNT7A	O00755	7476	WNT7A	40
4890-10_1	SL003461	Corticotropin	ACTH	P01189	5443	POMC	40
4891-50_1	SL000433	Glucagon	Glucagon	P01275	2641	GCG	40
4900-8_1	SL000313	C3a anaphylatoxin	C3a	P01024	718	C3	0.005
4903-72_1	SL003657	Calcineurin	Calcineurin	Q08209 P63098	5530 5534	PPP3CA PPP3R1	1
4904-7_1	SL003710	Caspase-2	Caspase-2	P42575	835	CASP2	40
4905-63_1	SL004814	Coactosin-like protein	Coactosin-like protein	Q14019	23406	COTL1	1
4906-35_1	SL000622	Coagulation Factor V	Coagulation Factor V	P12259	2153	F5	0.005
4907-56_1	SL000022	D-dimer	D-dimer	P02671 P02675 P02	2243 2244 2266	FGA FGB FGG	1
4908-6_1	SL004482	Endoglin	Endoglin	P17813	2022	ENG	40

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4909-68_1	SL005167	Galectin-8	Galectin-8	O00214	3964	LGALS8	40
4910-21_1	SL004064	Phospholipase A2	GIB	P04054	5319	PLA2G1B	40
4911-49_2	SL003643	Glutathione S-transferase P	Glutathione S-transferase Pi	P09211	2950	GSTP1	1
4912-17_1	SL000280	Aspartate aminotransferase, cytoplasmic	GOT1	P17174	2805	GOT1	1
4913-78_1	SL003300	C-C motif chemokine 16	HCC-4	O15467	6360	CCL16	1
4914-10_1	SL001766	Human Chorionic Gonadotropin	HCG	P01215,P01233	1081 1082	CGA CGB	40
4915-64_2	SL000836	Hemoglobin	Hemoglobin	P69905, P68871	3039 3043	HBA1 HBB	1
4916-2_1	SL000460	Immunoglobulin D	IgD	P01880	3495 50802 3535	IGHD IGK@ IGL@	1
4917-62_1	SL003182	Integrin alpha-V: beta-5 complex	Integrin aVb5	P06756, P18084	3685 3693	ITGAV ITGB5	40
4920-10_1	SL000510	Lysozyme C	Lysozyme	P61626	4069	LYZ	0.005
4922-13_1	SL003189	C-C motif chemokine 19	MIP-3b	Q99731	6363	CCL19	40
4923-79_1	SL005201	Muellerian-inhibiting factor	MIS	P03971	268	AMH	0.005
4924-32_1	SL000521	Interstitial collagenase	MMP-1	P03956	4312	MMP1	1
4925-54_2	SL000523	Collagenase 3	MMP-13	P45452	4322	MMP13	40
4929-55_1	SL005102	Sex hormone-binding globulin	SHBG	P04278	6462	SHBG	0.005
4930-21_1	SL005789	Stanniocalcin-1	Stanniocalcin-1	P52823	6781	STC1	1
4931-59_1	SL000024	Tissue Factor	TF	P13726	2152	F3	40
4956-2_1	SL000139	Epiregulin	EPI	O14944	2069	EREG	40
4957-1_2	SL004605	40S ribosomal protein SA	40S ribosomal protein SA	P08865	3921	RPSA	1
4959-2_1	SL004925	Anterior gradient protein 2 homolog	AGR2	O95994	10551	AGR2	40
4960-72_1	SL004208	Annexin A1	annexin I	P04083	301	ANXA1	1
4961-17_1	SL004209	Annexin A2	annexin II	P07355	302	ANXA2	40
4962-52_1	SL012538	Cerebral dopamine neurotrophic factor	ARMEL	Q49AH0	441549	CDNF	40
4963-19_1	SL011708	cAMP-regulated phosphoprotein 19	ARP19	P56211	10776	ARPP19	40
4964-67_1	SL007729	Endoplasmic reticulum aminopeptidase 1	ARTS1	Q9NZ08	51752	ERAP1	40

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4965-27_1	SL005675	ATP synthase subunit beta, mitochondrial	ATP synthase beta chain	P06576	506	ATP5B	40
4967-1_1	SL008177	Complement component 1 Q subcomponent-binding protein, mitochondrial	C1QBP	Q07021	708	C1QBP	1
4968-50_1	SL008099	Macrophage-capping protein	CAPG	P40121	822	CAPG	40
4969-2_1	SL004866	Carbonic anhydrase 1	Carbonic anhydrase I	P00915	759	CA1	1
4970-55_1	SL000339	Carbonic anhydrase 2	carbonic anhydrase II	P00918	760	CA2	40
4971-1_1	SL008380	Cathepsin Z	CATZ	Q9UBR2	1522	CTSZ	1
4973-18_1	SL003728	Baculoviral IAP repeat-containing protein 3	ciAP-2	Q13489	330	BIRC3	40
4976-57_1	SL013240	Adapter molecule crk	CRK	P46108	1398	CRK	40
4978-54_2	SL011628	Drebrin-like protein	DBNL	Q9UJU6	28988	DBNL	1
4979-34_2	SL008178	Dermatopontin	DERM	Q07507	1805	DPT	1
4981-6_1	SL008709	Desmocollin-3	DSC3	Q14574	1825	DSC3	40
4982-54_1	SL004458	Elafin	Elafin	P19957	5266	PI3	1
4983-6_1	SL003522	Endoplasmic reticulum resident protein 29	ERP29	P30040	10961	ERP29	0.005
4984-83_1	SL006378	S-formylglutathione hydrolase	Esterase D	P10768	2098	ESD	1
4985-11_1	SL005352	Fatty acid-binding protein, epidermal	FABPE	Q01469	2171	FABP5	1
4986-59_1	SL012248	Focal adhesion kinase 1	FAK1	Q05397	5747	PTK2	40
4987-17_1	SL010373	Immunoglobulin alpha Fc receptor	FCAR	P24071	2204	FCAR	40
4988-49_2	SL002036	Fibroblast growth factor receptor 4	FGFR4	P22455	2264	FGFR4	1
4989-7_1	SL003341	Fibrinogen gamma chain	Fibrinogen g-chain dimer	P02679	2266	FGG	1
4990-87_1	SL006460	Platelet glycoprotein Ib alpha chain	GP1BA	P07359	2811	GP1BA	1
4991-12_1	SL012469	Glypican-5	GPC5	P78333	2262	GPC5	40
4992-49_1	SL007173	Granulins	GRN	P28799	2896	GRN	1
4993-16_1	SL000670	Glutathione S-transferase A3	GSTA3	Q16772	2940	GSTA3	40
4994-178_1	SL002756	Heterogeneous nuclear ribonucleoprotein K	hnRNP K	P61978	3190	HNRNPK	40



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SeqId	Somald	TargetFullName	Target	UniProt	EntrezGeneID	EntrezGeneSymbo	Dilution
4995-16_1	SL003930	15-hydroxyprostaglandin dehydrogenase [NAD(+)]	HPG-	P15428	3248	HPGD	1
4996-66_1	SL006448	Histidine-rich glycoprotein	HRG	P04196	3273	HRG	0.005
4997-19_1	SL011616	Eukaryotic initiation factor 4A-III	IF4A3	P38919	9775	EIF4A3	40
4998-50_2	SL007025	Tyrosine-protein kinase JAK2	JAK2	O60674	3717	JAK2	1
5000-52_1	SL006522	Galectin-3-binding protein	LG3BP	Q08380	3959	LGALS3BP	1
5001-6_2	SL001973	Mammaglobin-B	Mammaglobin 2	O75556	4246	SCGB2A1	1
5002-76_1	SL002646	Matrix metalloproteinase-14	MMP-14	P50281	4323	MMP14	40
5004-69_1	SL007453	Mitogen-activated protein kinase 11	MK11	Q15759	5600	MAPK11	40
5005-4_1	SL007281	Mitogen-activated protein kinase 12	MK12	P53778	6300	MAPK12	40
5006-71_1	SL006993	Mitogen-activated protein kinase 13	MK13	O15264	5603	MAPK13	40
5007-1_1	SL006920	Mitogen-activated protein kinase 14	MAPK14	Q16539	1432	MAPK14	1
5008-51_1	SL001815	Superoxide dismutase [Mn], mitochondrial	Mn SOD	P04179	6648	SOD2	1
5009-11_1	SL005846	Moesin	Moesin	P26038	4478	MSN	40
5011-11_1	SL003685	Nicotinamide phosphoribosyltransferase	PBEF	P43490	10135	NAMPT	40
5012-67_1	SL004296	Adenylate kinase isoenzyme 1	Myokinase, human	P00568	203	AK1	1
5013-2_1	SL004915	Chloride intracellular channel protein 1	NCC27	O00299	1192	CLIC1	1
5014-49_1	SL006091	Cytoplasmic protein NCK1	NCK1	P16333	4690	NCK1	40
5015-15_1	SL003440	Platelet-activating factor acetylhydrolase	PAFAH	Q13093	7941	PLA2G7	0.005
5016-61_2	SL008933	Protein deglycase DJ-1	PARK7	Q99497	11315	PARK7	40
5017-19_1	SL004932	Peroxiredoxin-5, mitochondrial	Peroxiredoxin-5	P30044	25824	PRDX5	40
5018-68_1	SL005694	Peroxiredoxin-6	Peroxiredoxin-6	P30041	9588	PRDX6	1
5019-16_2	SL002803	Ubiquitin carboxyl-terminal hydrolase isozyme L1	UBPGP9.5	P09936	7345	UCHL1	1
5020-50_1	SL003653	Phosphoglycerate kinase 1	phosphoglycerate kinase 1	P00558	5230	PGK1	1
5021-13_1	SL004914	Inorganic pyrophosphatase	PPase	Q15181	5464	PPA1	1
5023-23_1	SL009792	Adenylosuccinate lyase	PUR8	P30566	158	ADSL	40
5024-67_1	SL002522	Retinoblastoma-associated protein	Rb	P06400	5925	RB1	40

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SeqId	Somald	TargetFullName	Target	UniProt	EntrezGeneID	EntrezGeneSymbo	Dilution
5026-66_1	SL008059	40S ribosomal protein S3	RS3	P23396	6188	RPS3	40
5028-59_1	SL005764	Scavenger receptor cysteine-rich type 1 protein M130	sCD163	Q86VB7	9332	CD163	1
5029-3_1	SL006528	Prolyl endopeptidase FAP	SEPR	Q12884	2191	FAP	1
5030-52_1	SL006629	NAD-dependent protein deacetylase sirtuin-2	SIRT2	Q8IXJ6	22933	SIRT2	40
5031-10_1	SL008190	Spectrin alpha chain, non-erythrocytic 1	SPTA2	Q13813	6709	SPTAN1	40
5032-64_1	SL009868	FACT complex subunit SSRP1	SSRP1	Q08945	6749	SSRP1	40
5033-27_1	SL004737	Tropomyosin alpha-1 chain	Tropomyosin 1 alpha chain	P09493	7168	TPM1	40
5034-79_1	SL010388	Trypsin-2	Trypsin 2	P07478	5645	PRSS2	1
5035-7_1	SL000142	Thymidylate synthase	TS	P04818	7298	TYMS	40
5036-50_1	SL004782	Tumor necrosis factor-inducible gene 6 protein	TSG-6	P98066	7130	TNFAIP6	40
5060-62_3	SL004852	Programmed cell death 1 ligand 1	B7-H1	Q9NZQ7	29126	CD274	40
5061-27_3	SL004853	ICOS ligand	B7-H2	O75144	23308	ICOSLG	1
5062-60_3	SL011100	CD226 antigen	CD226	Q15762	10666	CD226	40
5063-12_2	SL014188	Natural killer cell receptor 2B4	CD244	Q9BZW8	51744	CD244	40
5065-8_2	SL014229	CD83 antigen	CD83	Q01151	9308	CD83	40
5066-134_3	SL014270	CMRF35-like molecule 6	CLM6	Q08708	10871	CD300C	1
5068-54_3	SL014208	Cytotoxic and regulatory T-cell molecule	CRTAM	O95727	56253	CRTAM	40
5069-9_3	SL004556	Complement decay-accelerating factor	DAF	P08174	1604	CD55	1
5070-76_3	SL003739	Tumor necrosis factor receptor superfamily member 6B	DcR3	O95407	8771	TNFRSF6B	40
5076-53_2	SL014294	Ephrin type-A receptor 10	EPHAA	Q5JZY3	284656	EPHA10	40
5077-28_3	SL007179	Ephrin type-B receptor 2	EPHB2	P29323	2048	EPHB2	1
5078-82_3	SL008414	Ephrin type-B receptor 6	EphB6	O15197	2051	EPHB6	1
5080-131_3	SL007429	Transmembrane glycoprotein NMB	GPNMB	Q14956	10457	GPNMB	1
5082-51_3	SL004849	X-linked interleukin-1 receptor accessory protein like 2	IL-1 sR9	Q9NP60	26280	IL1RAPL2	1
5084-154_3	SL005174	Interleukin-17 receptor B	IL-17B R	Q9NRM6	55540	IL17RB	1
5085-18_3	SL005181	Interleukin-20 receptor subunit alpha	IL-20 Ra	Q9UHF4	53832	IL20RA	40
5087-5_3	SL005183	Interleukin-22 receptor subunit alpha-2	IL-22BP	Q969J5	116379	IL22RA2	40
5088-175_3	SL005185	Interleukin-23 receptor	IL-23 R	Q5VWK5	149233	IL23R	40
5089-11_3	SL005189	Interleukin-7 receptor subunit alpha	IL-7 Ra	P16871	3575	IL7R	40

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5090-49_2	SL005190	Leukocyte immunoglobulin-like receptor subfamily B member 1	ILT-2	Q8NHL6	10859	LILRB1	1
5091-28_3	SL005191	Leukocyte immunoglobulin-like receptor subfamily B member 2	ILT-4	Q8N423	10288	LILRB2	1
5092-51_3	SL007328	Protein jagged-1	JAG1	P78504	182	JAG1	1
5093-47_3	SL007774	Protein jagged-2	JAG2	Q9Y219	3714	JAG2	40
5094-62_3	SL009202	Junctional adhesion molecule-like	JAML1	Q86YT9	120425	AMICA1	40
5095-21_3	SL012698	Killer cell immunoglobulin-like receptor 2DL4	KI2L4	Q99706	3805	KIR2DL4	40
5096-51_3	SL014269	Killer cell immunoglobulin-like receptor 3DL2	KI3L2	P43630	3812	KIR3DL2	40
5097-14_3	SL014289	Killer cell immunoglobulin-like receptor 3DS1	KI3S1	Q14943	3813	KIR3DS1	40
5098-79_3	SL014209	Killer cell lectin-like receptor subfamily F member 1	KLRF1	Q9NZS2	51348	KLRF1	40
5099-14_3	SL005195	Lymphocyte activation gene 3 protein	LAG-3	P18627	3902	LAG3	40
5100-53_3	SL005197	Lysosome membrane protein 2	LIMP II	Q14108	950	SCARB2	40
5102-55_3	SL005200	MHC class I polypeptide-related sequence B	MICB	Q29980	4277	MICB	40
5103-30_3	SL014288	Cell surface glycoprotein CD200 receptor 1	MO2R1	Q8TD46	131450	CD200R1	40
5104-57_3	SL005207	Natural cytotoxicity triggering receptor 1	NKp46	O76036	9437	NCR1	40
5105-2_3	SL005208	Reticulon-4 receptor	Nogo Receptor	Q9BZR6	65078	RTN4R	1
5106-52_3	SL007356	Neurogenic locus notch homolog protein 2	NOTC2	Q04721	4853	NOTCH2	40
5107-7_2	SL005703	Neurogenic locus notch homolog protein 1	Notch 1	P46531	4851	NOTCH1	1
5108-72_3	SL005209	Neurogenic locus notch homolog protein 3	Notch-3	Q9UM47	4854	NOTCH3	0.005
5109-24_3	SL005210	Neuronal cell adhesion molecule	Nr-CAM	Q92823	4897	NRCAM	40
5110-84_3	SL009054	Neurexin-1-beta	NRX1B	P58400	9378	NRXN1	40
5111-15_3	SL008728	Neurexin-3-beta	NRX3B	Q9HDB5	9369	NRXN3	1
5112-73_3	SL014268	OX-2 membrane glycoprotein	OX2G	P41217	4345	CD200	40
5114-65_3	SL005212	Prolactin receptor	Prolactin Receptor	P16471	5618	PRLR	1
5115-31_3	SL005213	Tumor necrosis factor receptor superfamily member 19L	RELT	Q969Z4	84957	RELT	40
5116-62_2	SL007680	Roundabout homolog 2	ROBO2	Q9HCK4	6092	ROBO2	1
5117-14_3	SL014148	Roundabout homolog 3	ROBO3	Q96MS0	64221	ROBO3	40
5121-3_2	SL014248	Semaphorin-6B	SEM6B	Q9H3T3	10501	SEMA6B	40

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SeqId	Somald	TargetFullName	Target	UniProt	EntrezGeneID	EntrezGeneSymbo	Dilution
5122-92_2	SL005214	Semaphorin-6A	Semaphorin-6A	Q9H2E6	57556	SEMA6A	40
5124-69_3	SL005169	Intercellular adhesion molecule 5	sICAM-5	Q9UMF0	7087	ICAM5	1
5125-6_3	SL014292	Sialic acid-binding Ig-like lectin 14	SIG14	Q08ET2	100049587	SIGLEC14	1
5128-53_3	SL014228	SLAM family member 6	SLAF6	Q96DU3	114836	SLAMF6	40
5129-12_3	SL005221	Scavenger receptor class F member 1	SREC-I	Q14162	8578	SCARF1	1
5130-67_3	SL005222	Scavenger receptor class F member 2	SREC-II	Q96GP6	91179	SCARF2	40
5131-15_3	SL004863	Tumor necrosis factor receptor superfamily member 19	TAJ	Q9NS68	55504	TNFRSF19	40
5132-71_3	SL005223	Interleukin-27 receptor subunit alpha	TCCR	Q6UWB1	9466	IL27RA	1
5133-17_3	SL002078	TGF-beta receptor type-2	TGF-b R II	P37173	7048	TGFBR2	40
5134-52_2	SL007547	Hepatitis A virus cellular receptor 2	TIMD3	Q8TDQ0	84868	HAVCR2	40
5138-50_3	SL004366	Tumor necrosis factor receptor superfamily member 12A	TWEAKR	Q9NP84	51330	TNFRSF12A	40
5139-32_3	SL005230	Netrin receptor UNC5C	UNC5H3	O95185	8633	UNC5C	1
5140-56_3	SL005231	Netrin receptor UNC5D	UNC5H4	Q6UXZ4	137970	UNC5D	40
5178-5_3	SL011406	High affinity cAMP-specific 3',5'-cyclic phosphodiesterase 7A	PDE7A	Q13946	5150	PDE7A	40
5183-53_3	SL016548	AMP Kinase (alpha1beta1gamma1)	AMPK a1b1g1	Q13131 Q9Y478 P54	5562 5564 5571	PRKAA1 PRKAB1 P	40
5193-51_3	SL002542	GTPase KRas	K-ras	P01116	3845	KRAS	40
5196-7_3	SL006476	Glycylpeptide N-tetradecanoyltransferase 1	NMT1	P30419	4836	NMT1	40
5201-50_4	SL016554	High affinity cGMP-specific 3',5'-cyclic phosphodiesterase 9A	PDE9A	O76083	5152	PDE9A	40
5202-4_3	SL007373	Peptidyl-prolyl cis-trans isomerase D	PPID	Q08752	5481	PPID	40
5204-13_3	SL005308	Proteasome activator complex subunit 3	PSME3	P61289	10197	PSME3	40
5223-59_3	SL015728	Glucokinase regulatory protein	GCKR	Q14397	2646	GCKR	40
5225-50_3	SL016550	Casein kinase II 2-alpha:2-beta heterotetramer	CK2-A1:B	P68400 P67870	1457 1460	CSNK2A1 CSNK2B	40
5226-36_3	SL016551	Casein kinase II 2-alpha':2-beta heterotetramer	CK2-A2:B	P19784 P67870	1459 1460	CSNK2A2 CSNK2B	40
5227-60_3	SL006921	[Pyruvate dehydrogenase (acetyl-transferring)] kinase isozyme 1, mitochondrial	PDK1	Q15118	5163	PDK1	1
5228-25_2	SL006189	Kinesin-like protein KIF23	KIF23	Q02241	9493	KIF23	40
5229-90_3	SL014735	Inosine-5'-monophosphate dehydrogenase 1	IMDH1	P20839	3614	IMPDH1	40

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5230-99_3	SL016557	3-hydroxy-3-methylglutaryl-coenzyme A reductase	HMGR	P04035	3156	HMGCR	40
5231-79_3	SL012707	Proprotein convertase subtilisin/kexin type 9	PCSK9	Q8NBP7	255738	PCSK9	0.005
5236-2_3	SL007145	Nuclear receptor subfamily 1 group D member 1	NR1D1	P20393	9572	NR1D1	40
5238-26_3	SL013928	Peptidyl-prolyl cis-trans isomerase E	PPIE	Q9UNP9	10450	PPIE	40
5242-37_3	SL007237	Dual specificity mitogen-activated protein kinase 4	MP2K4	P45985	6416	MAP2K4	1
5244-12_3	SL004716	Mitogen-activated protein kinase 9	JNK2	P45984	5601	MAPK9	40
5245-40_5	SL016549	AMP Kinase (alpha2beta2gamma1)	AMPK a2b2g1	P54646 O43741 P54	5563 5565 5571	PRKAA2 PRKAB2 PRK	40
5246-64_3	SL005730	cGMP-dependent 3',5'-cyclic phosphodiesterase	cGMP-stimulated PDE	O00408	5138	PDE2A	1
5248-68_2	SL005793	Peptidyl-prolyl cis-trans isomerase F, mitochondrial	Cyclophilin F	P30405	10105	PPIF	40
5249-31_3	SL016566	Serine/threonine-protein kinase 17B	DRAK2	O94768	9262	STK17B	1
5250-53_3	SL010928	Inosine-5'-monophosphate dehydrogenase 2	IMDH2	P12268	3615	IMPDH2	1
5252-33_3	SL016555	Dual 3',5'-cyclic-AMP and -GMP phosphodiesterase 11A	PDE11	Q9HCR9	50940	PDE11A	1
5253-1_1	SL011400	Calcium/calmodulin-dependent 3',5'-cyclic nucleotide phosphodiesterase 1A	PDE1A	P54750	5136	PDE1A	40
5254-69_3	SL016553	cGMP-inhibited 3',5'-cyclic phosphodiesterase A	PDE3A	Q14432	5139	PDE3A	1
5255-22_3	SL011404	cAMP-specific 3',5'-cyclic phosphodiesterase 4D	PDE4D	Q08499	5144	PDE4D	1
5256-86_3	SL011405	cGMP-specific 3',5'-cyclic phosphodiesterase	PDE5A	O76074	8654	PDE5A	1
5259-2_3	SL016567	Mitogen-activated protein kinase kinase kinase 7:TGF-beta-activated kinase 1 and MAP3K7-binding protein 1 fusion	TAK1-TAB1	O43318 Q15750	6885 10454	MAP3K7 TAB1	1
5260-80_3	SL007181	Non-receptor tyrosine-protein kinase TYK2	TYK2	P29597	7297	TYK2	1
5261-13_3	SL010488	Abelson tyrosine-protein kinase 2	ABL2	P42684	27	ABL2	1
5262-57_3	SL014470	Breast cancer anti-estrogen resistance protein 3	BCAR3	O75815	8412	BCAR3	1
5264-65_3	SL003520	Calreticulin	calreticulin	P27797	811	CALR	1

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SeqId	Somald	TargetFullName	Target	UniProt	EntrezGeneID	EntrezGeneSymbo	Dilution
5265-12_3	SL005725	GRB2-related adapter protein 2	GRB2-related adapter protein 2	O75791	9402	GRAP2	40
5268-49_3	SL003331	Matrix metalloproteinase-16	MMP-16	P51512	4325	MMP16	40
5271-5_1	SL007310	Ras-related C3 botulinum toxin substrate 3	RAC3	P60763	5881	RAC3	40
5272-55_2	SL014469	SHC-transforming protein 1	SHC1	P29353	6464	SHC1	1
5275-28_2	SL014488	Proto-oncogene vav	VAV	P15498	7409	VAV1	40
5280-68_5	SL016563	Mitochondrial glutamate carrier 2	GHC2	Q9H1K4	83733	SLC25A18	40
5301-7_3	SL000406	Eotaxin	Eotaxin	P51671	6356	CCL11	1
5307-12_3	SL004400	Coagulation factor IXab	Coagulation Factor IXab	P00740	2158	F9	0.005
5308-89_2	SL000401	Neutrophil elastase	Elastase	P08246	1991	ELANE	1
5312-49_3	SL000277	Apolipoprotein E (isoform E2)	Apo E2	P02649	348	APOE	0.005
5315-22_3	SL000052	Troponin T, cardiac muscle	Troponin T	P45379	7139	TNNT2	1
5316-54_3	SL000558	Prothrombin	Prothrombin	P00734	2147	F2	0.005
5328-33_37	SL016828	Epidermal growth factor receptor variant III	EGFRvIII	P00533		EGFR	40
5335-73_3	SL003647	Annexin A6	annexin VI	P08133	309	ANXA6	40
5337-64_3	SL004131	T-lymphocyte activation antigen CD86	B7-2	P42081	942	CD86	40
5339-49_3	SL004477	Protein S100-A9	calgranulin B	P06702	6280	S100A9	40
5340-24_3	SL003717	Caspase-10	Caspase-10	Q92851	843	CASP10	1
5343-74_3	SL008703	Carboxypeptidase E	CBPE	P16870	1363	CPE	40
5345-51_3	SL006675	Cytoskeleton-associated protein 2	CKAP2	Q8WWK9	26586	CKAP2	40
5346-24_3	SL011808	Copine-1	CPNE1	Q99829	8904	CPNE1	1
5347-59_3	SL000130	G2/mitotic-specific cyclin-B1	Cyclin B1	P14635	891	CCNB1	40
5349-69_3	SL006970	Delta-like protein 1	DLL1	O00548	28514	DLL1	1
5350-14_2	SL012881	Glypican-6	GPC6	Q9Y625	10082	GPC6	1
5351-52_3	SL004891	Heterogeneous nuclear ribonucleoproteins A2/B1	hnRNP A2/B1	P22626	3181	HNRNPA2B1	1
5352-11_3	SL004145	Tumor necrosis factor receptor superfamily member 14	HVEM	Q92956	8764	TNFRSF14	40

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5353-89_2	SL001990	Interleukin-1 receptor antagonist protein	IL-1Ra	P18510	3557	IL1RN	1
5354-11_3	SL000655	Keratin, type I cytoskeletal 18	Keratin 18	P05783	3875	KRT18	40
5355-69_3	SL004648	Tumor necrosis factor ligand superfamily member 14	LIGHT	O43557	8740	TNFSF14	40
5356-2_3	SL003080	Macrophage migration inhibitory factor	MIF	P14174	4282	MIF	1
5357-60_3	SL014113	Neuroigin-4, X-linked	NLGNX	Q8N0W4	57502	NLGN4X	40
5358-3_3	SL008574	Osteomodulin	OMD	Q99983	4958	OMD	1
5359-65_3	SL002702	Serine/threonine-protein kinase pim-1	PIM1	P11309	5292	PIM1	40
5360-9_2	SL003722	RAC-beta serine/threonine-protein kinase	PKB beta	P31751	208	AKT2	1
5363-51_3	SL010470	Semaphorin-3E	Semaphorin 3E	O15041	9723	SEMA3E	40
5364-7_3	SL007336	Protein SET	SET	Q01105	6418	SET	1
5383-14_3	SL004671	Tumor necrosis factor receptor superfamily member 13C	BAFF Receptor	Q96RJ3	115650	TNFRSF13C	1
5384-67_3	SL016130	Transcription factor IIB 90 kDa subunit	BRF-1	Q92994	2972	BRF1	40
5392-73_2	SL002731	Tumor necrosis factor receptor superfamily member 6	Fas, soluble	P25445	355	FAS	1
5400-52_3	SL003184	Leptin receptor	sLeptin R	P48357	3953	LEPR	1
5404-53_3	SL004871	Tumor necrosis factor receptor superfamily member 21	DR6	O75509	27242	TNFRSF21	1
5410-53_3	SL007295	Cadherin-15	CAD15	P55291	1013	CDH15	1
5412-53_3	SL004134	CD27 antigen	CD27	P26842	939	CD27	0.005
5424-55_3	SL003690	Tumor necrosis factor receptor superfamily member 11A	RANK	Q9Y6Q6	8792	TNFRSF11A	1
5430-66_3	SL008967	Tyrosine-protein phosphatase non-receptor type substrate 1	SHPS1	P78324	140885	SIRPA	40
5451-1_3	SL003166	CD166 antigen	ALCAM	Q13740	214	ALCAM	1
5452-71_3	SL008835	Asialoglycoprotein receptor 1	ASGR1	P07306	432	ASGR1	1
5456-59_2	SL006694	Beta-Ala-His dipeptidase	CNDP1	Q96KN2	84735	CNDP1	0.005
5457-5_2	SL007471	Collectin-12	COLEC12	Q5KU26	81035	COLEC12	40
5459-33_3	SL010456	Cystatin-SN	CYTN	P01037	1469	CST1	1
5460-60_3	SL004750	ATP-dependent RNA helicase DDX19B	DEAD-box protein 19B	Q9UMR2	11269	DDX19B	40
5462-62_3	SL002086	Ficolin-3	Ficolin-3	O75636	8547	FCN3	0.005

Table S1

SeqId	Somald	TargetFullName	Target	UniProt	EntrezGeneID	EntrezGeneSymbo	Dilution
5463-22_3	SL000658	Growth arrest-specific protein 1	GAS1	P54826	2619	GAS1	1
5464-52_3	SL003792	Growth factor receptor-bound protein 2	GRB2 adapter protein	P62993	2885	GRB2	1
5465-32_3	SL014129	Heparan-sulfate 6-O-sulfotransferase 1	H6ST1	O60243	9394	HS6ST1	1
5467-15_3	SL000454	Heat shock protein HSP 90-beta	HSP 90b	P08238	3326	HSP90AB1	1
5468-67_3	SL011068	Interleukin-17 receptor C	IL-17 RC	Q8NAC3	84818	IL17RC	40
5470-69_2	SL010328	Mediator of RNA polymerase II transcription subunit 1	MED-1	Q15648	5469	MED1	1
5475-10_3	SL000553	Protein kinase C beta type (splice variant beta-II)	PKC-B-II	P05771	5579	PRKCB	40
5476-66_3	SL000556	Protein kinase C gamma type	PKC-G	P05129	5582	PRKCG	40
5478-50_2	SL000158	Glutamate carboxypeptidase 2	PSMA	Q04609	2346	FOLH1	40
5480-49_3	SL000563	C-C motif chemokine 5	RANTES	P13501	6352	CCL5	1
5481-16_3	SL013754	Ras GTPase-activating protein 1	RASA1	P20936	5921	RASA1	40
5482-61_3	SL000566	Retinol-binding protein 4	RBP	P02753	5950	RBP4	0.005
5483-1_3	SL010467	Repulsive guidance molecule A	RGMA	Q96B86	56963	RGMA	1
5484-63_3	SL011588	40S ribosomal protein S3a	RS3A	P61247	6189	RPS3A	40
5486-73_3	SL003177	Intercellular adhesion molecule 2	sICAM-2	P13598	3384	ICAM2	1
5487-7_3	SL016928	SLAM family member 7	SLAF7	Q9NQ25	57823	SLAMF7	40
5488-74_3	SL010516	Proto-oncogene tyrosine-protein kinase Src	SRCN1	P12931	6714	SRC	40
5489-18_3	SL010250	Stress-induced-phosphoprotein 1	Stress- induced- phosphopro tein 1	P31948	10963	STIP1	1
5490-53_3	SL010384	Testican-1	Testican-1	Q08629	6695	SPOCK1	1
5491-12_3	SL010471	Testican-2	Testican-2	Q92563	9806	SPOCK2	1
5493-17_3	SL010524	Serine/threonine-protein kinase WNK3	WNK3	Q9BYP7	65267	WNK3	1
5494-52_3	SL009790	Small nuclear ribonucleoprotein F	RUXF	P62306	6636	SNRPF	1
5508-62_3	SL000344	Cathepsin D	Cathepsin D	P07339	1509	CTSD	0.005
5509-7_3	SL000084	Epidermal growth factor	EGF	P01133	1950	EGF	1
5526-53_3	SL004859	Tumor necrosis factor receptor superfamily member 18	GITR	Q9Y5U5	8784	TNFRSF18	40



Table S1

<b>SeqId</b>	<b>Somald</b>	<b>TargetFullName</b>	<b>Target</b>	<b>UniProt</b>	<b>EntrezGeneID</b>	<b>EntrezGeneSymbo</b>	<b>Dilution</b>
5532-53_3	SL003060	Fibroblast growth factor receptor 1	bFGF-R	P11362	2260	FGFR1	0.005
5534-49_2	SL004157	Tumor necrosis factor receptor superfamily member 10B	TRAIL R2	O14763	8795	TNFRSF10B	40
5542-22_2	SL006397	Neuropilin-1	NRP1	O14786	8829	NRP1	0.005
5792-8_2	SL000011	alpha-Fetoprotein	AFP	P02771	174	AFP	40
5798-3_3	SL003704	BH3-interacting domain death agonist	BID	P55957	637	BID	40
5801-72_3	SL000305	beta-nerve growth factor	b-NGF	P01138	4803	NGF	40
5803-24_3	SL003362	Complement C3d fragment	C3d	P01024	718	C3	0.005
5807-77_3	SL007195	CD70 antigen	CD70	P32970	970	CD70	40
5810-25_3	SL005155	Teratocarcinoma-derived growth factor 1	Cripto	P13385	6997	TDGF1	40
5813-58_3	SL000408	Erythropoietin	Epo	P01588	2056	EPO	40
5822-22_3	SL004248	Glial cell line-derived neurotrophic factor	GDNF	P39905	2668	GDNF	40
5825-49_3	SL000458	Interferon gamma receptor 1	IFN-g R1	P15260	3459	IFNGR1	40
5834-18_3	SL000485	Interleukin-9	IL-9	P15248	3578	IL9	40
5837-49_3	SL004714	Leukemia inhibitory factor receptor	LIF sR	P42702	3977	LIFR	40
5843-60_3	SL003542	Histone-lysine N-methyltransferase EHMT2	NG36	Q96KQ7	10919	EHMT2	1
5846-24_3	SL004683	Noggin	Noggin	Q13253	9241	NOG	1
5852-6_3	SL004783	Protein S100-A12	S100A12	P80511	6283	S100A12	1
5854-60_3	SL004230	Microtubule-associated protein tau	tau	P10636	4137	MAPT	40
5858-6_5	SL005688	14-3-3 protein zeta/delta	14-3-3 protein zeta/delta	P63104	7534	YWHAZ	1
5861-78_3	SL008466	3-hydroxyanthranilate 3,4-dioxygenase	3HAO	P46952	23498	HAAO	1
5864-10_3	SL004910	Fructose-bisphosphate aldolase A	aldolase A	P04075	226	ALDOA	1
5867-60_3	SL008008	Arginase-1	ARG1	P05089	383	ARG1	40
5870-23_2	SL003700	Bcl2-associated agonist of cell death	BAD	Q92934	572	BAD	40
5879-51_3	SL009207	Dynactin subunit 2	Dynactin subunit 2	Q13561	10540	DCTN2	1
5882-34_2	SL005685	Elongation factor 1-beta	EF-1-beta	P24534	1933	EEF1B2	40
5885-55_3	SL004924	Eukaryotic translation initiation factor 4H	eIF-4H	Q15056	7458	EIF4H	1
5888-29_3	SL005687	Eukaryotic translation initiation factor 5A-1	eIF-5A-1	P63241	1984	EIF5A	1
5897-58_3	SL002071	Gastrin-releasing peptide	Gastrin-releasing peptide	P07492	2922	GRP	40

Table S1

<u>SeqId</u>	<u>Somald</u>	<u>TargetFullName</u>	<u>Target</u>	<u>UniProt</u>	<u>EntrezGeneID</u>	<u>EntrezGeneSymbo</u>	<u>Dilution</u>
5900-11_2	SL009431	Histidine triad nucleotide-binding protein 1	HINT1	P49773	3094	HINT1	40
5903-91_2	SL004899	Heat shock cognate 71 kDa protein	HSP70 protein 8	P11142	3312	HSPA8	1
5909-51_3	SL003687	Nucleoside diphosphate kinase A	Nucleoside diphosphat e kinase A	P15531	4830	NME1	1
5915-58_3	SL012148	Peroxisomal targeting signal 1 receptor	PEX5	P50542	5830	PEX5	40
5918-5_3	SL008176	Proteasome activator complex subunit 1	PSME1	Q06323	5720	PSME1	1
5921-58_3	SL004829	Protein S100-A7	S100A7	P31151	6278	S100A7	40
5927-4_3	SL004690	WNT1-inducible-signaling pathway protein 3	WISP-3	O95389	8838	WISP3	40
5934-1_3	SL000420	Ferritin	Ferritin	P02794 P02792	2495 2512	FTH1 FTL	1
5936-53_3	SL002517	Tumor necrosis factor	TNF-a	P01375	7124	TNF	40
5939-42_3	SL004365	Tumor necrosis factor ligand superfamily member 12	TWEAK	O43508	8742	TNFSF12	40
5947-90_3	SL000598	Thrombopoietin	Tpo	P40225	7066	THPO	40
5954-62_3	SL003970	Parathyroid hormone	PTH	P01270	5741	PTH	40
5957-30_3	SL011510	Somatostatin-28	Somatostati n-28	P61278	6750	SST	40
6151-18_3	SL007242	Dual specificity mitogen-activated protein kinase kinase 3	MP2K3	P46734	5606	MAP2K3	40
6152-111_3	SL000074	Cellular tumor antigen p53	p53	P04637	7157	TP53	1
6641-60_3	SL017289	PolyUbiquitin K48-linked	PolyUbiquiti n K48	P0CG47	7314	UBB	1
6647-55_3	SL017290	PolyUbiquitin K63-linked	PolyUbiquiti n K63	P0CG48	7316	UBC	1
6649-51_3	SL012395	Netrin-1	NET1	O95631	9423	NTN1	40
6653-58_3	SL004838	Leukocyte surface antigen CD47	CD47	Q08722	961	CD47	40
7624-19_3	SL014896	Ankyrin-2	ANK2	Q01484	287	ANK2	40
7625-27_3	SL008071	14-3-3 protein theta	14-3-3 protein theta	P27348	10971	YWHAQ	1
7628-40_3	SL012774	Cysteine-rich with EGF-like domain protein 1	CREL1	Q96HD1	78987	CRELD1	1

Table S1

SeqId	Somald	TargetFullName	Target	UniProt	EntrezGeneID	EntrezGeneSymbo	Dilution
7638-30_3	SL005403	Vesicular integral-membrane protein VIP36	Lectin, mannose-binding 2	Q12907	10960	LMAN2	0.005
7640-29_3	SL013872	Low-density lipoprotein receptor-related protein 1B	LRP1B	Q9NZR2	53353	LRP1B	0.005
7648-9_3	SL017328	Myosin-binding protein C, slow-type	MYPC1	Q00872	4604	MYBPC1	1
7655-11_3	SL002785	N-terminal pro-BNP	N-terminal pro-BNP	P16860	4879	NPPB	40
7660-21_3	SL003646	Tropomyosin alpha-4 chain	Tropomyosin 4	P67936	7171	TPM4	1
8446-4_3	SL011508	Pituitary adenylate cyclase-activating polypeptide 27	PACAP-27	P18509	116	ADCYAP1	40
8447-11_3	SL004269	Appetite-regulating hormone	ghrelin	Q9UBU3	51738	GHRL	40
8450-36_3	SL011498	Pituitary adenylate cyclase-activating polypeptide 38	PACAP-38	P18509	116	ADCYAP1	40
8458-111_3	SL005266	Alpha-synuclein	a-Synuclein	P37840	6622	SNCA	1
8459-10_3	SL003993	Bone morphogenetic protein 6	BMP-6	P22004	654	BMP6	1
8462-18_3	SL000442	Somatotropin	HGH	P01241	2688	GH1	40
8463-2_3	SL003672	Extracellular superoxide dismutase [Cu-Zn]	SOD3	P08294	6649	SOD3	0.005
8464-31_3	SL012517	R-spondin-4	RSPO4	Q2I0M5	343637	RSPO4	40
8465-52_3	SL000346	Cathepsin H	Cathepsin H	P09668	1512	CTSH	40
8467-9_3	SL004837	Inhibin beta A chain:Inhibin beta B chain heterodimer	Activin AB	P08476 P09529	3624 3625	INHBA INHBB	40
8468-19_3	SL000062	Prostate-specific antigen	PSA	P07288	354	KLK3	40
8469-41_3	SL000466	Insulin-like growth factor-binding protein 2	IGFBP-2	P18065	3485	IGFBP2	0.005
8470-213_3	SL017528	Ribonuclease H1	RNase H1	O60930	246243	RNASEH1	40
8474-6_3	SL006114	Tyrosine-protein kinase transmembrane receptor ROR1	ROR1	Q01973	4919	ROR1	1
8476-11_3	SL002762	Chromogranin-A	CgA	P10645	1113	CHGA	1
8479-4_3	SL000645	Stromelysin-2	MMP-10	P09238	4319	MMP10	40
8480-29_3	SL006527	EGF-containing fibulin-like extracellular matrix protein 1	FBLN3	Q12805	2202	EFEMP1	0.005
8484-24_3	SL000498	Leptin	Leptin	P41159	3952	LEP	1

Table S1

SeqId	Somald	TargetFullName	Target	UniProt	EntrezGeneID	EntrezGeneSymbo	Dilution
8485-7_3	SL017529	Kelch-like ECH-associated protein 1	KEAP1	Q14145	9817	KEAP1	1
8488-33_3	SL000542	Integrin alpha-IIb: beta-3 complex	gpIIbIIIa	P08514 P05106	3674 3690	ITGA2B ITGB3	40
9168-31_3	SL003170	C-C motif chemokine 26	Eotaxin-3	Q9Y258	10344	CCL26	40
9169-14_3	SL018938	Small ubiquitin-related modifier 3	SUMO3	P55854	6613	SUMO3	1
9170-24_3	SL001713	Interleukin-17A	IL-17	Q16552	3605	IL17A	40
9171-11_3	SL016969	Cysteine and glycine-rich protein 3	CSRP3	P50461	8048	CSRP3	40
9172-69_3	SL000526	Neutrophil collagenase	MMP-8	P22894	4317	MMP8	1
9173-21_3	SL008094	Phosphoglucomutase-1	PGM1	P36871	5236	PGM1	40
9175-48_3	SL018891	Down syndrome cell adhesion molecule	DSCAM	O60469	1826	DSCAM	40
9176-3_3	SL000001	Mucin-1	MUC1	P15941	4582	MUC1	40
9177-6_3	SL007306	Protein FAM3B	FAM3B	P58499	54097	FAM3B	1
9178-30_3	SL004297	Neuregulin-1	NEUREGULIN-1	Q02297	3084	NRG1	40
9180-6_3	SL007217	Interferon gamma receptor 2	INGR2	P38484	3460	IFNGR2	40
9182-3_3	SL004733	Low-density lipoprotein receptor-related protein 1, soluble	sLRP1	Q07954	4035	LRP1	40
9183-7_3	SL004475	Interferon alpha/beta receptor 1	IFN-a/b R1	P17181	3454	IFNAR1	1
9185-15_3	SL008591	Trefoil factor 1	TFF1	P04155	7031	TFF1	40
9187-2_3	SL013165	Non-histone chromosomal protein HMG-14	HMGN1	P05114	3150	HMGN1	1
9188-119_3	SL003188	C-X-C motif chemokine 9	MIG	Q07325	4283	CXCL9	40
9190-7_3	SL008837	CD63 antigen	CD63	P08962	967	CD63	1
9191-8_3	SL002602	Trefoil factor 2	Trefoil factor 2	Q03403	7032	TFF2	1
9196-8_3	SL005166	Galectin-7	Galectin-7	P47929	3963	LGALS7	1
9197-4_3	SL008486	Galectin-9	LEG9	O00182	3965	LGALS9	40
9199-6_3	SL018946	Ubiquitin-conjugating enzyme E2 G2	UB2G2	P60604	7327	UBE2G2	1
9201-13_3	SL004811	Transgelin-2	Transgelin-2	P37802	8407	TAGLN2	1
9202-309_3	SL008113	ATP synthase subunit O, mitochondrial	ATPO	P48047	539	ATP5O	40
9204-33_3	SL009210	Pro-opiomelanocortin	Corticotropin-lipotropin	P01189	5443	POMC	40
9207-60_3	SL018887	Quinone oxidoreductase-like protein 1	QORL1	O95825	9946	CRYZL1	1
9211-19_3	SL003066	Pigment epithelium-derived factor	PEDF	P36955	5176	SERPINF1	0.005
9212-22_3	SL008381	Cathepsin F	CATF	Q9UBX1	8722	CTSF	1

Table S1

<u>SeqId</u>	<u>Somald</u>	<u>TargetFullName</u>	<u>Target</u>	<u>UniProt</u>	<u>EntrezGeneID</u>	<u>EntrezGeneSymbo</u>	<u>Dilution</u>
9213-24_3	SL018900	Formimidoyltransferase-cyclodeaminase	FTCD	O95954	10841	FTCD	40
9215-117_3	SL018947	Ubiquitin carboxyl-terminal hydrolase 25	UBP25	Q9UHP3	29761	USP25	40
9216-100_3	SL009948	Plexin-B2	PLXB2	O15031	23654	PLXNB2	1

Table S2

<b>Table S2:List of association of protein variables with Apnea index (used as continous variable).</b>									
<b>vars</b>	<b>t</b>	<b>P.Value</b>	<b>logFC</b>	<b>B</b>	<b>5%FDR P</b>	<b>TargetFullName</b>	<b>UniProt</b>	<b>EntrezID</b>	<b>Symbol</b>
tPA	4.894	1.23E-06	0.0038	2.274	0.000980	Tissue-type plasminogen activator	P00750	5327	PLAT
Laminin	4.851	1.51E-06	0.0033	2.075	0.000980	Laminin	P25391, P07942, P11047	284217 3912 3915	LAMA1
IGFBP-1	-4.586	5.35E-06	-0.0097	0.859	0.002314	Insulin-like growth factor-binding protein 1	P08833	3484	IGFBP1
Carbonic anhydrase I	-4.266	2.26E-05	-0.0105	-0.520	0.006852	Carbonic anhydrase 1	P00915	759	CA1
Aminoacylase-1	4.223	2.73E-05	0.0064	-0.697	0.006852	Aminoacylase-1	Q03154	95	ACY1
Growth hormone receptor	4.185	3.21E-05	0.0039	-0.854	0.006852	Growth hormone receptor	P10912	2690	GHR
IL-18 Ra	4.152	3.70E-05	0.0019	-0.988	0.006852	Interleukin-18 receptor 1	Q13478	8809	IL18R1
LG3BP	4.079	5.03E-05	0.0046	-1.281	0.008161	Galectin-3-binding protein	Q08380	3959	LGALS3BP
UNC5H4	-4.025	6.32E-05	-0.0032	-1.497	0.009105	Netrin receptor UNC5D	Q6UXZ4	137970	UNC5D
TFPI	3.973	7.83E-05	0.0030	-1.700	0.010152	Tissue factor pathway inhibitor	P10646	7035	TFPI
Factor H	3.894	0.00011	0.0019	-2.006	0.012501	Complement factor H	P08603	3075	CFH
NRX1B	-3.877	0.00012	-0.0034	-2.069	0.012501	Neurexin-1-beta	P58400	9378	NRXN1
MBD4	-3.836	0.00014	-0.0024	-2.225	0.013609	Methyl-CpG-binding domain protein 4	O95243	8930	MBD4
Coagulation Factor IXab	3.799	0.00016	0.0029	-2.363	0.014262	Coagulation factor IXab	P00740	2158	F9
Factor I	3.785	0.00017	0.0017	-2.417	0.014262	Complement factor I	P05156	3426	CFI
PDE11	3.768	0.00018	0.0021	-2.478	0.014262	Dual 3',5'-cyclic-AMP and -GMP phosphodiesterase 11A	Q9HCR9	50940	PDE11A
DHH	-3.756	0.00019	-0.0036	-2.522	0.014262	Desert hedgehog protein N-product	O43323	50846	DHH
Integrin a1b1	3.739	0.00020	0.0039	-2.584	0.014383	Integrin alpha-I: beta-1 complex	P56199, P05556	3672 3688	ITGA1
LYVE1	-3.702	0.00023	-0.0031	-2.721	0.015106	Lymphatic vessel endothelial hyaluronic acid receptor 1	Q9Y5Y7	10894	LYVE1
Coagulation Factor IX	3.698	0.00023	0.0024	-2.736	0.015106	Coagulation factor IX	P00740	2158	F9

Table S2

vars	t	P.Value	logFC	B	5%FDR P	TargetFullName	UniProt	EntrezID	Symbol
GDF2	-3.677	0.00025	-0.0042	-2.810	0.015106	Growth/differentiation factor 2	Q9UK05	2658	GDF2
Endothelin-converting enzyme 1	3.671	0.00026	0.0018	-2.833	0.015106	Endothelin-converting enzyme 1	P42892	1889	ECE1
suPAR	3.662	0.00027	0.0019	-2.864	0.015106	Urokinase plasminogen activator surface receptor	Q03405	5329	PLAUR
S100A4	-3.652	0.00028	-0.0053	-2.901	0.015106	Protein S100-A4	P26447	6275	S100A4
SAP	3.602	0.00034	0.0024	-3.079	0.017541	Serum amyloid P-component	P02743	325	APCS
IFN-lambda 1	-3.571	0.00038	-0.0023	-3.188	0.018453	Interferon lambda-1	Q8IU54	282618	IFNL1
MCP-4	-3.567	0.00039	-0.0035	-3.204	0.018453	C-C motif chemokine 13	Q99616	6357	CCL13
CD70	3.558	0.00040	0.0034	-3.233	0.018453	CD70 antigen	P32970	970	CD70
PLPP	-3.524	0.00045	-0.0045	-3.354	0.020282	Pyridoxal phosphate phosphatase	Q96GD0	57026	PDXP
Peroxiredoxin-6	-3.474	0.00054	-0.0068	-3.525	0.023489	Peroxiredoxin-6	P30041	9588	PRDX6
Calcineurin	3.455	0.00058	0.0028	-3.588	0.023489	Calcineurin	Q08209 P63098	5530 5534	PPP3CA
NACA	-3.454	0.00059	-0.0053	-3.594	0.023489	Nascent polypeptide-associated complex subunit alpha	Q13765	4666	NACA
Coagulation Factor Xa	3.445	0.00061	0.0022	-3.624	0.023489	Coagulation factor Xa	P00742	2159	F10
NOTC2	3.440	0.00062	0.0049	-3.640	0.023489	Neurogenic locus notch homolog protein 2	Q04721	4853	NOTCH2
a-Synuclein	-3.429	0.00064	-0.0069	-3.678	0.023766	Alpha-synuclein	P37840	6622	SNCA
IL-13 Ra1	3.413	0.00068	0.0016	-3.732	0.024457	Interleukin-13 receptor subunit alpha-1	P78552	3597	IL13RA1
C5b, 6 Complex	3.405	0.00070	0.0019	-3.760	0.024457	Complement C5b-C6 complex	P01031,P 13671	727 729	C5
CD39	3.398	0.00072	0.0015	-3.781	0.024457	Ectonucleoside triphosphate diphosphohydrolase 1	P49961	953	ENTPD1
CK2-A1:B	-3.375	0.00078	-0.0056	-3.858	0.025890	Casein kinase II 2-alpha:2-beta heterotetramer	P68400 P67870	1457 1460	CSNK2A1
IFN10	3.366	0.00080	0.0040	-3.888	0.026060	Interferon alpha-10	P01566	3446	IFNA10

Table S2

vars	t	P.Value	logFC	B	5%FDR P	TargetFullName	UniProt	EntrezID	Symbol
Myokinase, human	-3.341	0.00088	-0.0076	-3.970	0.027207	Adenylate kinase isoenzyme 1	P00568	203	AK1
41	-3.340	0.00088	-0.0078	-3.973	0.027207	Protein 4.1	P11171	2035	EPB41
NADPH-P450 Oxidoreductase	3.325	0.00093	0.0043	-4.023	0.028046	NADPH--cytochrome P450 reductase	P16435	5447	POR
PAFAH beta subunit	-3.306	0.00099	-0.0035	-4.085	0.029296	Platelet-activating factor acetylhydrolase IB subunit beta	P68402	5049	PAFAH1B2
Heparin cofactor II	3.289	0.00106	0.0023	-4.142	0.030463	Heparin cofactor 2	P05546	3053	SERPIND1
HINT1	-3.279	0.00109	-0.0036	-4.173	0.030809	Histidine triad nucleotide- binding protein 1	P49773	3094	HINT1
TRAIL R1	-3.241	0.00125	-0.0041	-4.297	0.034453	Tumor necrosis factor receptor superfamily member 10A	O00220	8797	TNFRSF10A
KIF23	-3.227	0.00131	-0.0038	-4.339	0.035327	Kinesin-like protein KIF23	Q02241	9493	KIF23
FCN1	3.218	0.00135	0.0026	-4.368	0.035715	Ficolin-1	O00602	2219	FCN1
eIF-5	-3.197	0.00145	-0.0031	-4.436	0.036988	Eukaryotic translation initiation factor 5	P55010	1983	EIF5
IL-34	3.196	0.00145	0.0026	-4.438	0.036988	Interleukin-34	Q6ZMJ4	146433	IL34
AN32B	3.180	0.00154	0.0034	-4.490	0.038388	Acidic leucine-rich nuclear phosphoprotein 32 family member B	Q92688	10541	ANP32B
Lymphotactin	-3.160	0.00164	-0.0022	-4.551	0.039717	Lymphotactin	P47992	6375	XCL1
B7	3.158	0.00166	0.0013	-4.559	0.039717	T-lymphocyte activation antigen CD80	P33681	941	CD80
cGMP-stimulated PDE	-3.153	0.00168	-0.0064	-4.573	0.039717	cGMP-dependent 3',5'-cyclic phosphodiesterase	O00408	5138	PDE2A
Myoglobin	3.116	0.00191	0.0025	-4.687	0.043108	Myoglobin	P02144	4151	MB
BMP-1	3.115	0.00191	0.0029	-4.691	0.043108	Bone morphogenetic protein 1	P13497	649	BMP1
MED-1	3.113	0.00193	0.0018	-4.697	0.043108	Mediator of RNA polymerase II transcription subunit 1	Q15648	5469	MED1
CRTAM	-3.101	0.00201	-0.0032	-4.735	0.044142	Cytotoxic and regulatory T-cell molecule	O95727	56253	CRTAM



Table S2

<b>vars</b>	<b>t</b>	<b>P.Value</b>	<b>logFC</b>	<b>B</b>	<b>5%FDR P</b>	<b>TargetFullName</b>	<b>UniProt</b>	<b>EntrezID</b>	<b>Symbol</b>
Peroxiredoxin-1	-3.090	0.00208	-0.0035	-4.769	0.045034	Peroxiredoxin-1	Q06830	5052	PRDX1
BAD	-3.068	0.00224	-0.0043	-4.835	0.047599	Bcl2-associated agonist of cell death	Q92934	572	BAD
IL-16	3.063	0.00228	0.0010	-4.850	0.047628	Interleukin-16	Q14005	3603	IL16
Myostatin	-3.051	0.00237	-0.0062	-4.886	0.047929	Growth/differentiation factor 8	O14793	2660	MSTN
IMB1	-3.048	0.00239	-0.0056	-4.895	0.047929	Importin subunit beta-1	Q14974	3837	KPNB1
PSA6	-3.047	0.00240	-0.0021	-4.899	0.047929	Proteasome subunit alpha type-6	P60900	5687	PSMA6

Table S3

<b>Table S3: List of association of protein variables with Moderate to Severe Index (AHI &gt;= 15) compared to mild/controls ( AHI &lt;15).</b>									
<b>vars</b>	<b>t</b>	<b>P.Value</b>	<b>logFC</b>	<b>B</b>	<b>5%FDR P</b>	<b>TargetFullName</b>	<b>UniProt</b>	<b>EntrezID</b>	<b>Symbol</b>
Factor I	4.161	3.57E-05	0.0473	1.985	0.036	Complement factor I	P05156	3426	CFI
Calcineurin	4.056	5.56E-05	0.0844	1.578	0.036	Calcineurin	Q08209 P63098	5530 5534	PPP3CA PPP3R1
SOST	-3.747	0.00019	-0.1032	0.441	0.049	Sclerostin	Q9BQB4	50964	SOST
NRX1B	-3.720	0.00021	-0.0854	0.345	0.049	Neurexin-1-beta	P58400	9378	NRXN1
GDF2	-3.718	0.00022	-0.1108	0.336	0.049	Growth/differentiation factor 2	Q9UK05	2658	GDF2
Lymphotactin	-3.676	0.00025	-0.0665	0.189	0.049	Lymphotactin	P47992	6375	XCL1
Carbonic anhydrase I	-3.611	0.00033	-0.232	-0.036	0.049	Carbonic anhydrase 1	P00915	759	CA1
CRTAM	-3.609	0.00033	-0.097	-0.042	0.049	Cytotoxic and regulatory T-cell molecule	O95727	56253	CRTAM
suPAR	3.600	0.00034	0.0494	-0.073	0.049	Urokinase plasminogen activator surface receptor	Q03405	5329	PLAUR

Table S4

<b>Table S4: List of association of protein variables Severe Index (AHI &gt;= 30) compared to controls ( AHI &lt; 5).</b>									
<b>vars</b>	<b>t</b>	<b>P.Value</b>	<b>logFC</b>	<b>B</b>	<b>5%FDR P</b>	<b>TargetFullName</b>	<b>UniProt</b>	<b>GeneID</b>	<b>Symbol</b>
Carbonic anhydrase I	-4.107	5.1E-05	-0.431	1.726	0.039	Carbonic anhydrase 1	P00915	759	CA1
Factor I	4.068	6.0E-05	0.071	1.584	0.039	Complement factor I	P05156	3426	CFI
UNC5H4	-3.869	1.3E-04	-0.135	0.887	0.055	Netrin receptor UNC5D	Q6UXZ4	137970	UNC5D
Laminin	3.753	2.1E-04	0.108	0.491	0.055	Laminin	P25391, P07942, P11047	284217 3912 3915	LAMA1 LAMB1 LAMC1
tPA	3.728	2.3E-04	0.129	0.409	0.055	Tissue-type plasminogen activator	P00750	5327	PLAT
Aminoacylase-1	3.701	2.5E-04	0.248	0.320	0.055	Aminoacylase-1	Q03154	95	ACY1

Table S5

<b>Table S5: List of association of protein variables with Moderate apnea (OAH1 &gt;= 15 &amp; OAH1 &lt; 30 ) compared to controls ( AHI &lt;= 5).</b>									
vars	t	P.Value	logFC	B	5%FDR P	TargetFullName	UniProt	GeneID	Symbol
UNC5H4	-3.412	0.001	-0.103	-0.587	0.449	Netrin receptor UNC5D	Q6UXZ4	137970	UNC5D
Factor I	3.334	0.001	0.057	-0.821	0.449	Complement factor I	P05156	3426	CFI
PPAC	-3.282	0.001	-0.275	-0.974	0.449	Low molecular weight phosphotyrosine protein phosphatase	P24666	52	ACP1
Carbonic anhydrase I	-3.225	0.001	-0.321	-1.139	0.449	Carbonic anhydrase 1	P00915	759	CA1
PUR8	-3.051	0.002	-0.233	-1.629	0.513	Adenylosuccinate lyase	P30566	158	ADSL
eIF-5	-3.013	0.003	-0.119	-1.732	0.513	Eukaryotic translation initiation factor 5	P55010	1983	EIF5
PSA	-2.983	0.003	-0.126	-1.814	0.513	Prostate-specific antigen	P07288	354	KLK3
Heparin cofactor II	2.917	0.004	0.077	-1.987	0.513	Heparin cofactor 2	P05546	3053	SERPIND1
Myokinase, human	-2.911	0.004	-0.272	-2.005	0.513	Adenylate kinase isoenzyme 1	P00568	203	AK1
Eotaxin-3	-2.902	0.004	-0.118	-2.027	0.513	C-C motif chemokine 26	Q9Y258	10344	CCL26
bFGF	-2.763	0.006	-0.234	-2.382	0.616	Fibroblast growth factor 2	P09038	2247	FGF2
Calcineurin	2.703	0.007	0.071	-2.530	0.616	Calcineurin	Q08209 P63098	5530 5534	PPP3CA PPP3R1
sE-Selectin	2.682	0.008	0.125	-2.580	0.616	E-selectin	P16581	6401	SELE
C5a	2.648	0.008	0.117	-2.662	0.616	C5a anaphylatoxin	P01031	727	C5
S100A4	-2.636	0.009	-0.156	-2.690	0.616	Protein S100-A4	P26447	6275	S100A4
HSP 27	-2.635	0.009	-0.135	-2.693	0.616	Heat shock protein beta-1	P04792	3315	HSPB1
UBE2N	-2.628	0.009	-0.193	-2.710	0.616	Ubiquitin-conjugating enzyme E2 N	P61088	7334	UBE2N
CSF-1	-2.598	0.010	-0.067	-2.781	0.616	Macrophage colony-stimulating factor 1	P09603	1435	CSF1

Table S6

<b>Table S6: List of association of protein variables with Mild Apnea index (OAHI &gt; 5 &amp; OAHI &lt; 15 ) compared to controls ( OAHI &lt;= 5).OAHI - Obstructive apnea hypopnea index</b>									
<b>vars</b>	<b>t</b>	<b>P.Value</b>	<b>logFC</b>	<b>B</b>	<b>5%FDR P</b>	<b>TargetFullName</b>	<b>UniProt</b>	<b>GeneID</b>	<b>Symbol</b>
MMP-13	-3.058	0.002	-0.101	-1.681	0.973	Collagenase 3	P45452	4322	MMP13
MP2K3	-2.883	0.004	-0.054	-2.162	0.973	Dual specificity mitogen-activated protein kinase kinase 3	P46734	5606	MAP2K3
IL-1 R AcP	-2.818	0.005	-0.098	-2.335	0.973	Interleukin-1 Receptor accessory protein	Q9NPH3	3556	IL1RAP
PPAC	-2.767	0.006	-0.190	-2.467	0.973	Low molecular weight phosphotyrosine protein phosphatase	P24666	52	ACP1
Integrin a1b1	2.733	0.007	0.094	-2.554	0.973	Integrin alpha-I: beta-1 complex	P56199, P05556	3672 3688	ITGA1 ITGB1
ART	-2.665	0.008	-0.092	-2.723	0.973	Agouti-related protein	O00253	181	AGRP
UCRP	-2.600	0.010	-0.117	-2.884	0.973	Ubiquitin-like protein ISG15	P05161	9636	ISG15
Carbonic anhydrase I	-2.559	0.011	-0.209	-2.982	0.973	Carbonic anhydrase 1	P00915	759	CA1
ADAMTS-5	2.543	0.011	0.036	-3.021	0.973	A disintegrin and metalloproteinase with thrombospondin motifs 5	Q9UNA0	11096	ADAMTS5
aldolase A	-2.523	0.012	-0.066	-3.067	0.973	Fructose-bisphosphate aldolase A	P04075	226	ALDOA
bFGF	-2.448	0.015	-0.195	-3.240	0.973	Fibroblast growth factor 2	P09038	2247	FGF2
Nr-CAM	-2.427	0.016	-0.071	-3.288	0.973	Neuronal cell adhesion molecule	Q92823	4897	NRCAM
Eotaxin-3	-2.355	0.019	-0.073	-3.450	0.973	C-C motif chemokine 26	Q9Y258	10344	CCL26
RGM-C	2.315	0.021	0.054	-3.536	0.973	Hemojuvelin	Q6ZVN8	148738	HFE2
ERAB	2.288	0.023	0.053	-3.594	0.973	3-hydroxyacyl-CoA dehydrogenase type-2	Q99714	3028	HSD17B10
LEG9	-2.285	0.023	-0.063	-3.601	0.973	Galectin-9	O00182	3965	LGALS9
LRRT3	2.272	0.024	0.047	-3.628	0.973	Leucine-rich repeat transmembrane neuronal protein 3	Q86VH5	347731	LRRTM3
sRANKL	-2.271	0.024	-0.068	-3.631	0.973	Tumor necrosis factor ligand superfamily member 11	O14788	8600	TNFSF11

Table S7

**Table S7: pathway analysis of top protein variables (5% FDR significant) associated with apnea index (modelled as continuous variable)**

Category	ID	Name	Source	p-value	q-value FDR B&H	Hit Count	Hit Count in Genome	Hit in Query List
Pathway	83073	Complement and coagulation cascades	BioSystems: KEGG	3E-11	2.55E-08	10	79	CFH,PLAT,PLAUR,C5,C6,CFI,SERPIND1,F9,F10,TFPI
Pathway	1270323	L1CAM interactions	BioSystems: REACTOME	1E-07	6.22E-05	8	102	RPS6KA5,CSNK2A1,CSNK2B,LAMA1,LAMB1,LAMC1,ITGA1,ITGB1
Pathway	1270253	Laminin interactions	BioSystems: REACTOME	3E-07	0.000067	5	25	LAMA1,LAMB1,LAMC1,ITGA1,ITGB1
Pathway	M5889	Ensemble of genes encoding extracellular matrix and extracellular matrix-associated proteins	MSigDB C2 BIOCARTA (v6.0)	3E-07	0.000067	21	1028	S100A4,IL34,BMP1,IL16,IGFBP1,DHH,FCN1,LAMA1,LAMB1,LAMC1,PLAT,CCL13,GDF2,MSTN,PLXNB2,XCL1,SERPIND1,F9,F10,IFNA10,FGF16
Pathway	M5885	Ensemble of genes encoding ECM-associated proteins including ECM-affiliated proteins, ECM regulators and secreted factors	MSigDB C2 BIOCARTA (v6.0)	1E-06	0.00024	17	753	S100A4,IL34,BMP1,IL16,DHH,FCN1,PLAT,CCL13,GDF2,MSTN,PLXNB2,XCL1,SERPIND1,F9,F10,IFNA10,FGF16
Pathway	1269369	Extrinsic Pathway of Fibrin Clot Formation	BioSystems: REACTOME	2E-06	0.000279	3	5	F9,F10,TFPI
Pathway	P00011	Blood coagulation	PantherDB	4E-06	0.000433	5	40	PLAT,PLAUR,F9,F10,TFPI
Pathway	1269340	Hemostasis	BioSystems: REACTOME	4E-06	0.000443	15	640	PDE2A,KIF23,PLAT,PLAUR,PLCG1,ITGA1,TNFRSF10A,ITGB1,SERPIND1,F9,F10,IFNA10,LGALS3BP,TFPI,PDE11A
Pathway	1457800	MET activates PTK2 signaling	BioSystems: REACTOME	5E-06	0.000483	4	20	LAMA1,LAMB1,LAMC1,ITGB1
Pathway	1270254	Non-integrin membrane-ECM interactions	BioSystems: REACTOME	7E-06	0.000615	5	46	NRXN1,LAMA1,LAMB1,LAMC1,ITGB1
Pathway	1269241	Complement cascade	BioSystems: REACTOME	2E-05	0.001242	5	54	CFH,FCN1,C5,C6,CFI
Pathway	1269250	Regulation of Complement cascade	BioSystems: REACTOME	2E-05	0.001271	4	27	CFH,C5,C6,CFI

Table S7

Category	ID	Name	Source	p-value	q-value FDR B&H	Hit Count	Hit Count in Genome	Hit in Query List
Pathway	83051	Cytokine-cytokine receptor interaction	BioSystems: KEGG	3E-05	0.0018	9	270	GHR,IL13RA1,CD70,CCL13,TNFRSF10A,XCL1,IL18R1,IFNA10,IFNL1
Pathway	1457799	MET promotes cell motility	BioSystems: REACTOME	3E-05	0.0018	4	31	LAMA1,LAMB1,LAMC1,ITGB1
Pathway	M5883	Genes encoding secreted soluble factors	MSigDB C2 BIOCARTA (v6.0)	3E-05	0.0018	10	344	S100A4,IL34,IL16,DHH,CCL13,GDF2,MSTN,XCL1,IFNA10,FGF16
Pathway	1269310	Cytokine Signaling in Immune system	BioSystems: REACTOME	3E-05	0.0018	15	763	GHR,IL34,IL13RA1,IL16,UBE2N,CD80,PSMA6,CD70,PLCG1,ITGB1,IL18R1,IFNA10,FGF16,KPNB1,IFNL1
Pathway	1269203	Innate Immune System	BioSystems: REACTOME	5E-05	0.002705	20	1312	CFH,PPP3CA,PPP3R1,RPS6KA5,UBE2N,FCN1,CD80,CSNK2B,PSMA6,PAFAH1B2,BAD,PLAUR,C5,PLCG1,C6,CFI,PRDX6,IFNA10,FGF16,KPNB1
Pathway	1269368	Formation of Fibrin Clot (Clotting Cascade)	BioSystems: REACTOME	8E-05	0.003762	4	39	SERPIND1,F9,F10,TFPI
Pathway	1270303	Axon guidance	BioSystems: REACTOME	9E-05	0.004147	12	554	RPS6KA5,CSNK2A1,CSNK2B,PSMA6,LAMA1,LAMB1,LAMC1,PLCG1,ITGA1,ITGB1,UNC5D,FGF16
Pathway	83068	ECM-receptor interaction	BioSystems: KEGG	0.0001	0.005152	5	82	LAMA1,LAMB1,LAMC1,ITGA1,ITGB1
Pathway	M3952	Cells and Molecules involved in local acute inflammatory response	MSigDB C2 BIOCARTA (v6.0)	0.0001	0.005152	3	17	C5,C6,ITGB1
Pathway	692234	PI3K-Akt signaling pathway	BioSystems: KEGG	0.0002	0.007002	9	342	GHR,BAD,LAMA1,LAMB1,LAMC1,ITGA1,ITGB1,IFNA10,FGF16
Pathway	W:0000295	altered integrin signaling	Pathway Ontology	0.0002	0.007461	2	4	ITGA1,ITGB1

Table S7

Category	ID	Name	Source	p-value	q-value FDR B&H	Hit Count	Hit Count in Genome	Hit in Query List
Pathway	M15394	Acute Myocardial Infarction	MSigDB C2 BIOCARTA (v6.0)	0.0002	0.007461	3	20	PLAT,F10,TFPI
Pathway	1270326	Signal transduction by L1	BioSystems: REACTOME	0.0002	0.008001	3	21	CSNK2A1,CSNK2B,ITGB1
Pathway	M15926	Trefoil Factors Initiate Mucosal Healing	MSigDB C2 BIOCARTA (v6.0)	0.0002	0.008001	3	21	GHR,BAD,ITGB1
Pathway	1269370	Intrinsic Pathway of Fibrin Clot Formation	BioSystems: REACTOME	0.0003	0.008883	3	22	SERPIND1,F9,F10
Pathway	1270256	ECM proteoglycans	BioSystems: REACTOME	0.0004	0.01071	4	57	LAMA1,LAMB1,LAMC1,ITGB1
Pathway	83066	VEGF signaling pathway	BioSystems: KEGG	0.0004	0.01181	4	59	PPP3CA,PPP3R1,BAD,PLCG1
Pathway	169642	Toxoplasmosis	BioSystems: KEGG	0.0006	0.01541	5	113	BAD,LAMA1,LAMB1,LAMC1,ITGB1
Pathway	1270262	Apoptosis	BioSystems: REACTOME	0.0006	0.01557	6	174	BMX,PPP3R1,PSMA6,BAD,TNFRSF1 0A,KPNB1
Pathway	83065	Axon guidance	BioSystems: KEGG	0.0006	0.01557	6	175	PPP3CA,PPP3R1,PLCG1,PLXNB2,IT GB1,UNC5D
Pathway	1270261	Programmed Cell Death	BioSystems: REACTOME	0.0006	0.01603	6	177	BMX,PPP3R1,PSMA6,BAD,TNFRSF1 0A,KPNB1
Pathway	1457794	Signaling by MET	BioSystems: REACTOME	0.0007	0.0183	4	69	LAMA1,LAMB1,LAMC1,ITGB1
Pathway	1269318	Signaling by Interleukins	BioSystems: REACTOME	0.0011	0.0238	10	531	IL34,IL13RA1,IL16,UBE2N,CD80,PS MA6,ITGB1,IL18R1,FGF16,IFNL1
Pathway	101144	Prion diseases	BioSystems: KEGG	0.0012	0.0238	3	35	LAMC1,C5,C6
Pathway	83079	Natural killer cell mediated cytotoxicity	BioSystems: KEGG	0.0012	0.0238	5	133	PPP3CA,PPP3R1,PLCG1,TNFRSF10 A,IFNA10



Table S7

Category	ID	Name	Source	p-value	q-value FDR B&H	Hit Count	Hit Count in Genome	Hit in Query List
Pathway	83067	Focal adhesion	BioSystems: KEGG	0.0012	0.0238	6	199	BAD,LAMA1,LAMB1,LAMC1,ITGA1,ITGB1
Pathway	1268705	Transport of gamma-carboxylated protein precursors from the endoplasmic reticulum to the Golgi apparatus	BioSystems: REACTOME	0.0012	0.0238	2	9	F9,F10
Pathway	1270327	CHL1 interactions	BioSystems: REACTOME	0.0012	0.0238	2	9	ITGA1,ITGB1
Pathway	W:0000315	calcineurin signaling	Pathway Ontology	0.0012	0.0238	2	9	PPP3CA,PPP3R1
Pathway	1269249	Terminal pathway of complement	BioSystems: REACTOME	0.0012	0.0238	2	9	C5,C6
Pathway	W:0000474	coagulation cascade	Pathway Ontology	0.0012	0.0238	2	9	F9,F10
Pathway	1269300	FCERI mediated Ca <sup>2+</sup> mobilization	BioSystems: REACTOME	0.0013	0.02381	3	36	PPP3CA,PPP3R1,PLCG1
Pathway	1268704	Gamma-carboxylation of protein precursors	BioSystems: REACTOME	0.0015	0.0265	2	10	F9,F10
Pathway	M16334	Eph Kinases and ephrins support platelet aggregation	MSigDB C2 BIOCARTA (v6.0)	0.0015	0.0265	2	10	ITGA1,ITGB1
Pathway	1268706	Removal of aminoterminal propeptides from gamma-carboxylated proteins	BioSystems: REACTOME	0.0015	0.0265	2	10	F9,F10
Pathway	1269600	WNT mediated activation of DVL	BioSystems: REACTOME	0.0015	0.0265	2	10	CSNK2A1,CSNK2B
Pathway	83118	Small cell lung cancer	BioSystems: KEGG	0.0016	0.0265	4	84	LAMA1,LAMB1,LAMC1,ITGB1
Pathway	M5887	Genes encoding structural components of basement membranes	MSigDB C2 BIOCARTA (v6.0)	0.0017	0.02821	3	40	LAMA1,LAMB1,LAMC1
Pathway	P00049	Parkinson disease	PantherDB	0.0018	0.02821	4	87	CSNK2A1,CSNK2B,PSMA6,SNCA

Table S7

Category	ID	Name	Source	p-value	q-value FDR B&H	Hit Count	Hit Count in Genome	Hit in Query List
Pathway	1269303	C-type lectin receptors (CLRs)	BioSystems: REACTOME	0.0018	0.02821	5	147	PPP3CA,PPP3R1,RPS6KA5,UBE2N, PSMA6
Pathway	1269298	Fc epsilon receptor (FCER1) signaling	BioSystems: REACTOME	0.0018	0.02821	8	381	PPP3CA,PPP3R1,UBE2N,CD80,PSM A6,BAD,PLCG1,FGF16
Pathway	1268703	Gamma-carboxylation, transport, and amino-terminal cleavage of proteins	BioSystems: REACTOME	0.0019	0.02821	2	11	F9,F10
Pathway	1269822	Condensation of Prometaphase Chromosomes	BioSystems: REACTOME	0.0019	0.02821	2	11	CSNK2A1,CSNK2B
Pathway	1270244	Extracellular matrix organization	BioSystems: REACTOME	0.0019	0.02869	7	298	BMP1,NRXN1,LAMA1,LAMB1,LAMC 1,ITGA1,ITGB1
Pathway	PW:0000031	purine metabolic	Pathway Ontology	0.0021	0.03084	3	43	PDE2A,ENTPD1,AK1
Pathway	1458885	Th1 and Th2 cell differentiation	BioSystems: KEGG	0.0022	0.03129	4	92	PPP3CA,PPP3R1,PLCG1,NOTCH2
Pathway	M4732	Lectin Induced Complement Pathway	MSigDB C2 BIOCARTA (v6.0)	0.0022	0.03144	2	12	C5,C6
Pathway	634527	NF-kappa B signaling pathway	BioSystems: KEGG	0.0024	0.03359	4	95	CSNK2A1,CSNK2B,CCL13,PLCG1
Pathway	1269415	Phospholipase C-mediated cascade; FGFR3	BioSystems: REACTOME	0.0026	0.03359	2	13	PLCG1,FGF16
Pathway	M4470	Extrinsic Prothrombin Activation Pathway	MSigDB C2 BIOCARTA (v6.0)	0.0026	0.03359	2	13	F10,TFPI
Pathway	1269372	Dissolution of Fibrin Clot	BioSystems: REACTOME	0.0026	0.03359	2	13	PLAT,PLAUR
Pathway	1269305	CLEC7A (Dectin-1) induces NFAT activation	BioSystems: REACTOME	0.0026	0.03359	2	13	PPP3CA,PPP3R1
Pathway	1269349	Platelet Adhesion to exposed collagen	BioSystems: REACTOME	0.0026	0.03359	2	13	ITGA1,ITGB1

Table S7

Category	ID	Name	Source	p-value	q-value FDR B&H	Hit Count	Hit Count in Genome	Hit in Query List
Pathway	M6487	Platelet Amyloid Precursor Protein Pathway	MSigDB C2 BIOCARTA (v6.0)	0.003	0.03788	2	14	PLAT,F9
Pathway	M7146	Classical Complement Pathway	MSigDB C2 BIOCARTA (v6.0)	0.003	0.03788	2	14	C5,C6
Pathway	P00034	Integrin signalling pathway	PantherDB	0.0031	0.03852	5	167	LAMA1,LAMB1,LAMC1,ITGA1,ITGB1
Pathway	1269304	CLEC7A (Dectin-1) signaling	BioSystems: REACTOME	0.0033	0.03942	4	103	PPP3CA,PPP3R1,UBE2N,PSMA6
Pathway	83099	Amyotrophic lateral sclerosis (ALS)	BioSystems: KEGG	0.0034	0.03942	3	51	PPP3CA,PPP3R1,BAD
Pathway	W:0000016	amyotrophic lateral sclerosis disease	Pathway Ontology	0.0035	0.03942	2	15	PPP3CA,BAD
Pathway	1269424	Phospholipase C-mediated cascade; FGFR4	BioSystems: REACTOME	0.0035	0.03942	2	15	PLCG1,FGF16
Pathway	1270271	Activation of BAD and translocation to mitochondria	BioSystems: REACTOME	0.0035	0.03942	2	15	PPP3R1,BAD
Pathway	W:0000009	programmed cell death	Pathway Ontology	0.0035	0.03942	2	15	PPP3CA,BAD
Pathway	M4835	B Cell Survival Pathway	MSigDB C2 BIOCARTA (v6.0)	0.004	0.04428	2	16	ITGA1,ITGB1
Pathway	172846	Staphylococcus aureus infection	BioSystems: KEGG	0.0045	0.04869	3	56	CFH,C5,CFI
Pathway	P00050	Plasminogen activating cascade	PantherDB	0.0045	0.04869	2	17	PLAT,PLAUR

**Table S8: pathway analysis of top upregulated protein variables (5% FDR significant) associated with apnea index (modelled as continuous variable)**

Category	ID	Name	Source	p-value	q-value FDR B&H	Hit Count	Hit Count in Genome	Hit in Query List
Pathway	83073	Complement and coagulation cascades	BioSystems: KEGG	1.3E-14	5.5E-12	10	79	CFH,PLAT,PLAUR,C5,C6,CFI,SERPIND1,F9,F10,TFPI
Pathway	1270253	Laminin interactions	BioSystems: REACTOME	7.7E-09	1.6E-06	5	25	LAMB1,LAMC1,ITGA1,ITGB1,LAMA1
Pathway	P00011	Blood coagulation	PantherDB	9.3E-08	1.3E-05	5	40	PLAT,PLAUR,F9,F10,TFPI
Pathway	1269369	Extrinsic Pathway of Fibrin Clot Formation	BioSystems: REACTOME	2.2E-07	2.3E-05	3	5	F9,F10,TFPI
Pathway	1457800	MET activates PTK2 signaling	BioSystems: REACTOME	2.8E-07	2.3E-05	4	20	LAMB1,LAMC1,ITGB1,LAMA1
Pathway	1269241	Complement cascade	BioSystems: REACTOME	4.3E-07	3.0E-05	5	54	CFH,C5,C6,CFI,FCN1
Pathway	1269250	Regulation of Complement cascade	BioSystems: REACTOME	9.9E-07	5.9E-05	4	27	CFH,C5,C6,CFI
Pathway	1269340	Hemostasis	BioSystems: REACTOME	1.1E-06	5.9E-05	11	640	PLAT,PLAUR,ITGA1,ITGB1,SERPIND1,F9,F10,IFNA10,LGALS3BP,TFPI,PDE11A
Pathway	1457799	MET promotes cell motility	BioSystems: REACTOME	1.8E-06	8.2E-05	4	31	LAMB1,LAMC1,ITGB1,LAMA1
Pathway	83068	ECM-receptor interaction	BioSystems: KEGG	3.5E-06	1.5E-04	5	82	LAMB1,LAMC1,ITGA1,ITGB1,LAMA1
GO: Cellular Component	GO:0062023	collagen-containing extracellular matrix		3.0E-11	5.6E-09	12	474	APCS,LAMB1,BMP1,LAMC1,PLAT,IL16,ITGB1,FCN1,F9,LGALS3BP,ENTPD1,LAMA1
GO: Cellular Component	GO:0031012	extracellular matrix		4.4E-10	4.1E-08	12	598	APCS,LAMB1,BMP1,LAMC1,PLAT,IL16,ITGB1,FCN1,F9,LGALS3BP,ENTPD1,LAMA1
GO: Cellular Component	GO:0005606	laminin-1 complex		5.8E-09	3.6E-07	3	3	LAMB1,LAMC1,LAMA1

GO: Cellular Component	GO:0009986	cell surface		2.1E-08	9.5E-07	13	1036	GHR,IL13RA1,PLAT,PLAUR,ITGA1,ECE1,ITGB1,FCN1,CD80,F10,NOTCH2,ENTPD1,TFPI
GO: Cellular Component	GO:0043256	laminin complex		9.5E-07	3.5E-05	3	11	LAMB1,LAMC1,LAMA1
GO: Cellular Component	GO:0009897	external side of plasma membrane		1.4E-06	4.4E-05	8	454	GHR,IL13RA1,ITGA1,ECE1,ITGB1,FCN1,CD80,F10
GO: Cellular Component	GO:0005604	basement membrane		2.0E-06	5.1E-05	5	113	LAMB1,LAMC1,ITGB1,ENTPD1,LAMA1
GO: Cellular Component	GO:0098552	side of membrane		2.5E-06	5.1E-05	9	663	GHR,IL13RA1,ITGA1,PPP3CA,ECE1,ITGB1,FCN1,CD80,F10
GO: Cellular Component	GO:0097478	leaflet of membrane bilayer		2.5E-06	5.1E-05	9	663	GHR,IL13RA1,ITGA1,PPP3CA,ECE1,ITGB1,FCN1,CD80,F10
GO: Cellular Component	GO:0034665	integrin alpha1-beta1 complex		3.3E-06	6.2E-05	2	2	ITGA1,ITGB1
GO: Biological Process	GO:0072376	protein activation cascade		1.4E-10	2.4E-07	9	207	CFH,APCS,C5,C6,CFI,FCN1,F9,F10,TFPI
GO: Biological Process	GO:0042060	wound healing		1.2E-08	1.0E-05	11	617	APCS,PLAT,PLAUR,PPP3CA,SERPIND1,F9,F10,NOTCH2,IFNA10,ENTPD1,TFPI
GO: Biological Process	GO:0009611	response to wounding		9.2E-08	5.4E-05	11	756	APCS,PLAT,PLAUR,PPP3CA,SERPIND1,F9,F10,NOTCH2,IFNA10,ENTPD1,TFPI
GO: Biological Process	GO:0007596	blood coagulation		2.5E-07	7.9E-05	8	353	PLAT,PLAUR,SERPIND1,F9,F10,IFNA10,ENTPD1,TFPI
GO: Biological Process	GO:0007599	hemostasis		2.8E-07	7.9E-05	8	358	PLAT,PLAUR,SERPIND1,F9,F10,IFNA10,ENTPD1,TFPI
GO: Biological Process	GO:0050817	coagulation		2.9E-07	7.9E-05	8	360	PLAT,PLAUR,SERPIND1,F9,F10,IFNA10,ENTPD1,TFPI

GO: Biological Process	GO:0002682	regulation of immune system process		3.1E-07	7.9E-05	15	1776	IL34,CFH,APCS,CD70,C5,C6,PPP3CA,MED1,PPP3R1,CFI,ITGB1,IL18R1,FCN1,CD80,NOTCH2
GO: Biological Process	GO:0006959	humoral immune response		3.9E-07	8.5E-05	8	373	CFH,APCS,C5,C6,CFI,FCN1,NOTCH2,IFNA10
GO: Biological Process	GO:0050878	regulation of body fluid levels		6.2E-07	1.2E-04	9	548	PLAT,PLAUR,MED1,SERPIND1,F9,F10,IFNA10,ENTPD1,TFPI
GO: Biological Process	GO:0050776	regulation of immune response		9.2E-07	1.6E-04	12	1170	CFH,APCS,C5,C6,PPP3CA,MED1,PPP3R1,CFI,ITGB1,IL18R1,FCN1,CD80
GO: Molecular Function	GO:0004175	endopeptidase activity		5.4E-08	1.3E-05	12	859	POR,BMP1,PLAT,PLAUR,C5,ECE1,CFI,ANP32B,SERPIND1,F9,F10,TFPI
GO: Molecular Function	GO:0070011	peptidase activity, acting on L-amino acid peptides		4.2E-07	4.9E-05	13	1255	POR,BMP1,PLAT,PLAUR,C5,ACY1,ECE1,CFI,ANP32B,SERPIND1,F9,F10,TFPI
GO: Molecular Function	GO:0008233	peptidase activity		6.1E-07	4.9E-05	13	1296	POR,BMP1,PLAT,PLAUR,C5,ACY1,ECE1,CFI,ANP32B,SERPIND1,F9,F10,TFPI
GO: Molecular Function	GO:0043208	glycosphingolipid binding		1.5E-06	9.3E-05	3	12	LAMB1,LAMC1,LAMA1
GO: Molecular Function	GO:0005102	signaling receptor binding		4.6E-06	1.9E-04	14	1817	IL34,LAMB1,BMP1,CD70,PLAT,PLAUR,IL16,C5,ITGA1,MED1,ITGB1,FCN1,IFNA10,LAMA1
GO: Molecular Function	GO:0005125	cytokine activity		4.8E-06	1.9E-04	6	225	IL34,BMP1,CD70,IL16,C5,IFNA10
GO: Molecular Function	GO:0004252	serine-type endopeptidase activity		1.2E-05	4.3E-04	6	265	PLAT,CFI,SERPIND1,F9,F10,TFPI
GO: Molecular Function	GO:0051861	glycolipid binding		1.8E-05	4.7E-04	3	26	LAMB1,LAMC1,LAMA1

GO: Molecular Function	GO:0008236	serine-type peptidase activity		1.9E-05	4.7E-04	6	287	PLAT,CFI,SERPIND1,F9,F10,TFPI
GO: Molecular Function	GO:0016825	hydrolase activity, acting on acid phosphorus-nitrogen bonds		2.1E-05	4.7E-04	6	292	PLAT,CFI,SERPIND1,F9,F10,TFPI
Disease	C0001733	Afibrinogenemia	DisGeNET Curated	2.5E-08	3.2E-05	4	14	CFH,CFI,F9,F10
Disease	C0243026	Sepsis	DisGeNET Curated	1.8E-07	1.2E-04	10	510	CFH,PLAT,PLAUR,C5,PPP3CA,ITGB1,FCN1,CD80,F9,TFPI
Disease	C0036690	Septicemia	DisGeNET Curated	8.5E-07	3.5E-04	9	461	CFH,PLAT,PLAUR,C5,PPP3CA,ITGB1,FCN1,CD80,TFPI
Disease	C1956346	Coronary Artery Disease	DisGeNET Curated	1.3E-06	3.5E-04	11	800	CFH,APCS,PLAT,IL16,ITGA1,ECE1,ANP32B,F9,F10,LGALS3BP,TFPI
Disease	C0151699	Intracranial Hemorrhages	DisGeNET Curated	1.4E-06	3.5E-04	4	36	PLAT,F9,F10,TFPI
Disease	C0003873	Rheumatoid Arthritis	DisGeNET Curated	1.6E-06	3.5E-04	15	1633	IL34,CFH,CD70,PLAT,IL16,C5,ITGA1,PPP3CA,ITGB1,IL18R1,FCN1,CD80,ANP32B,F9,LGALS3BP
Disease	C0024141	Lupus Erythematosus, Systemic	DisGeNET Curated	6.4E-06	1.2E-03	11	941	CFH,APCS,CD70,LAMC1,IL16,C6,ITGB1,IL18R1,CD80,ANP32B,LAMA1
Disease	C1861172	Venous Thromboembolism	DisGeNET Curated	9.3E-06	1.4E-03	3	18	PLAT,SERPIND1,TFPI
Disease	C0584960	Factor V Leiden mutation	DisGeNET BeFree	1.0E-05	1.4E-03	4	59	BMP1,SERPIND1,F9,TFPI
Disease	C0004364	Autoimmune Diseases	DisGeNET Curated	1.4E-05	1.4E-03	11	1018	CFH,APCS,CD70,IL16,ITGB1,IL18R1,CD80,ANP32B,F9,LGALS3BP,ENTPD1

Table S9

Table S9: pathway analysis of top downregulated protein variables (5% FDR significant) associated with apnea index (modelled as continuous variable)								
Category	ID	Name	Source	p-value	q-value FDR B&H	Hit Count	Hit Count in Genome	Hit in Query List
GO: Cellular Component	GO:0005956	protein kinase CK2 complex		7.0E-06	1.5E-03	2	3	CSNK2A1,CSNK2B
GO: Biological Process	GO:0009967	positive regulation of signal transduction		1.8E-06	2.1E-03	13	1823	S100A4,CCL13,HINT1,TNFRSF10A,NRXN1,GDF2,MSTN,XCL1,CSNK2A1,CSNK2B,PSMA6,BAD,IFNL1
GO: Biological Process	GO:0046434	organophosphate catabolic process		3.4E-06	2.1E-03	5	148	PDXP,PDE2A,HINT1,MBD4,PRDX6
GO: Biological Process	GO:0051187	cofactor catabolic process		4.5E-06	2.1E-03	4	70	PDXP,SNCA,PRDX6,PRDX1
GO: Biological Process	GO:0019220	regulation of phosphate metabolic process		4.8E-06	2.1E-03	13	1994	PDE2A,CCL13,TNFRSF10A,SNCA,NRXN1,GDF2,MSTN,XCL1,CSNK2A1,CSNK2B,PRDX1,BAD,IFNL1
GO: Biological Process	GO:0051174	regulation of phosphorus metabolic process		4.8E-06	2.1E-03	13	1995	PDE2A,CCL13,TNFRSF10A,SNCA,NRXN1,GDF2,MSTN,XCL1,CSNK2A1,CSNK2B,PRDX1,BAD,IFNL1
GO: Biological Process	GO:0042325	regulation of phosphorylation		9.2E-06	2.6E-03	12	1781	PDE2A,CCL13,TNFRSF10A,SNCA,NRXN1,GDF2,MSTN,XCL1,CSNK2B,PRDX1,BAD,IFNL1
GO: Biological Process	GO:0042327	positive regulation of phosphorylation		1.0E-05	2.6E-03	10	1197	CCL13,TNFRSF10A,SNCA,NRXN1,GDF2,MSTN,XCL1,CSNK2B,BAD,IFNL1
GO: Biological Process	GO:0019637	organophosphate metabolic process		1.1E-05	2.6E-03	10	1203	PDXP,AK1,PDE2A,HINT1,SNCA,MBD4,CSNK2A1,PRDX6,CSNK2B,BAD
GO: Biological Process	GO:0001906	cell killing		1.1E-05	2.6E-03	5	189	CCL13,XCL1,PRDX1,BAD,CRTAM



Table S9

Category	ID	Name	Source	p-value	q-value FDR B&H	Hit Count	Hit Count in Genome	Hit in Query List
GO: Biological Process	GO:0009719	response to endogenous stimulus		1.2E-05	2.6E-03	12	1834	PDXP,PDE2A,IGFBP1,DHH,SNCA,NRXN1,MBD4,GDF2,MSTN,XCL1,CSNK2B,BAD
GO: Molecular Function	GO:0005102	signaling receptor binding		1.8E-05	3.3E-03	12	1817	S100A4,CCL13,IGFBP1,DHH,SNCA,NRXN1,GDF2,MSTN,XCL1,CSNK2B,CRTAM,IFNL1
GO: Molecular Function	GO:0098772	molecular function regulator		2.9E-05	3.3E-03	12	1905	CCL13,TNFRSF10A,SNCA,NRXN1,GDF2,MSTN,XCL1,CSNK2A1,CSNK2B,BAD,IFNL1,EIF5
GO: Molecular Function	GO:0005125	cytokine activity		3.3E-05	3.3E-03	5	225	CCL13,GDF2,MSTN,XCL1,IFNL1
GO: Molecular Function	GO:0042802	identical protein binding		4.6E-05	3.5E-03	12	1995	PDXP,S100A4,PDE2A,SNCA,MSTN,XCL1,CSNK2A1,PRDX6,CSNK2B,PAFAH1B2,PRDX1,CRTAM
GO: Molecular Function	GO:0031072	heat shock protein binding		9.2E-05	4.6E-03	4	144	PDXP,SNCA,CSNK2A1,KPNB1
GO: Molecular Function	GO:0004601	peroxidase activity		1.1E-04	4.6E-03	3	56	SNCA,PRDX6,PRDX1
GO: Molecular Function	GO:0016788	hydrolase activity, acting on ester bonds		1.3E-04	4.6E-03	9	1237	PDXP,PDE2A,SNCA,MBD4,CSNK2A1,PRDX6,CA1,PAFAH1B2,KPNB1
GO: Molecular Function	GO:0016684	oxidoreductase activity, acting on peroxide as acceptor		1.3E-04	4.6E-03	3	60	SNCA,PRDX6,PRDX1
GO: Molecular Function	GO:0051920	peroxiredoxin activity		1.5E-04	4.6E-03	2	11	PRDX6,PRDX1
GO: Molecular Function	GO:0005126	cytokine receptor binding		1.5E-04	4.6E-03	5	312	CCL13,GDF2,MSTN,XCL1,IFNL1
Pathway	P00049	Parkinson disease	PantherDB	5.3E-05	1.4E-02	4	87	SNCA,CSNK2A1,CSNK2B,PSMA6

Table S9

Category	ID	Name	Source	p-value	q-value FDR B&H	Hit Count	Hit Count in Genome	Hit in Query List
Pathway	137913	Alpha-synuclein signaling	BioSystems : Pathway Interaction Database	6.0E-05	1.4E-02	3	32	SNCA,CSNK2A1,BAD
Pathway	M5883	Genes encoding secreted soluble factors	MSigDB C2 BIOCARTA (v6.0)	1.4E-04	2.2E-02	6	344	S100A4,CCL13,DHH,GDF2,MSTN,XCL1
Pathway	137953	Role of Calcineurin-dependent NFAT signaling in lymphocytes	BioSystems : Pathway Interaction Database	2.4E-04	2.3E-02	3	51	CSNK2A1,BAD,KPNB1
Pathway	1269600	WNT mediated activation of DVL	BioSystems : REACTOME	2.5E-04	2.3E-02	2	10	CSNK2A1,CSNK2B
Pathway	1269822	Condensation of Prometaphase Chromosomes	BioSystems : REACTOME	3.0E-04	2.4E-02	2	11	CSNK2A1,CSNK2B
Pathway	1270262	Apoptosis	BioSystems : REACTOME	7.6E-04	4.7E-02	4	174	TNFRSF10A,PSMA6,BAD,KPNB1
Pathway	1270261	Programmed Cell Death	BioSystems : REACTOME	8.1E-04	4.7E-02	4	177	TNFRSF10A,PSMA6,BAD,KPNB1
Disease	C0236642	Pick Disease of the Brain	DisGeNET Curated	9.8E-04	3.9E-02	3	100	SNCA,PRDX6,PRDX1
Disease	OMIN:168601	PARKINSON DISEASE 1, AUTOSOMAL DOMINANT; PARK1	OMIM	2.0E-03	3.9E-02	1	1	SNCA
Disease	OMIN:233420	46,XY GONADAL DYSGENESIS, COMPLETE OR PARTIAL, DHH-RELATED	OMIM	2.0E-03	3.9E-02	1	1	DHH

Table S9

Category	ID	Name	Source	p-value	q-value FDR B&H	Hit Count	Hit Count in Genome	Hit in Query List
Disease	C3809710	TELANGIECTASIA, HEREDITARY HEMORRHAGIC, TYPE 5	DisGeNET Curated	2.0E-03	3.9E-02	1	1	GDF2
Disease	C3280524	SCHIZOPHRENIA 17	DisGeNET Curated	2.0E-03	3.9E-02	1	1	NRXN1
Disease	cv:CN074193	Gamstorp-Wohlfart syndrome	Clinical Variations	2.0E-03	3.9E-02	1	1	HINT1
Disease	C2939414	Nuclear sclerosis	DisGeNET BeFree	2.0E-03	3.9E-02	1	1	PRDX6
Disease	C1851957	Diffuse Lewy Body Disease with Gaze Palsy	DisGeNET Curated	2.0E-03	3.9E-02	1	1	SNCA
Disease	C1856273	46,XY Gonadal Dysgenesis, Complete or Partial, DHH-Related	DisGeNET Curated	2.0E-03	3.9E-02	1	1	DHH
Disease	cv:C3280479	Pitt-Hopkins-like syndrome 2	Clinical Variations	2.0E-03	3.9E-02	1	1	NRXN1

Table S10

<b>Table S10: List of association of protein variables with central apnea index (CAI)</b>									
<b>vars</b>	<b>t</b>	<b>P.Value</b>	<b>logFC</b>	<b>B</b>	<b>5%FDR P</b>	<b>TargetFullName</b>	<b>UniProt</b>	<b>GeneID</b>	<b>Symbol</b>
ROBO3	6.935	9.3E-12	0.053	15.979	1.2E-08	Roundabout homolog 3	Q96MS0	64221	ROBO3
CYTF	4.966	8.6E-07	0.072	4.895	5.6E-04	Cystatin-F	O76096	8530	CST7
CRIS3	3.662	2.7E-04	0.028	-0.557	1.0E-01	Cysteine-rich secretory protein 3	P54108	10321	CRISP3
ZNRF3	3.619	3.2E-04	0.038	-0.707	1.0E-01	E3 ubiquitin-protein ligase ZNRF3	Q9ULT6	84133	ZNRF3
Coagulation Factor IX	-3.109	2.0E-03	-0.021	-2.390	3.2E-01	Coagulation factor IX	P00740	2158	F9
EPI	3.133	1.8E-03	0.034	-2.316	3.2E-01	Epiregulin	O14944	2069	EREG
GP1BA	3.178	1.5E-03	0.018	-2.176	3.2E-01	Platelet glycoprotein Ib alpha chain	P07359	2811	GP1BA
MMP-7	3.155	1.7E-03	0.031	-2.249	3.2E-01	Matrilysin	P09237	4316	MMP7
FCN1	2.993	2.9E-03	0.025	-2.736	4.0E-01	Ficolin-1	O00602	2219	FCN1
MDM2	2.970	3.1E-03	0.018	-2.805	4.0E-01	E3 ubiquitin-protein ligase Mdm2	Q00987	4193	MDM2
Cathepsin V	-2.861	4.3E-03	-0.026	-3.116	5.1E-01	Cathepsin L2	O60911	1515	CTSV
C1q	-2.795	5.3E-03	-0.030	-3.300	5.8E-01	Complement C1q subcomponent	P02745 P02746 P02747	712 713 714	C1QA C1QB C1QC
MFRP	2.769	5.8E-03	0.018	-3.726	5.8E-01	Membrane frizzled-related protein	Q9BY79	83552	MFRP
Angiotensinogen	-2.721	6.7E-03	-0.027	-3.502	5.8E-01	Angiotensinogen	P01019	183	AGT
SET	-2.737	6.4E-03	-0.016	-3.458	5.8E-01	Protein SET	Q01105	6418	SET
EPHB2	2.648	8.3E-03	0.013	-3.695	6.2E-01	Ephrin type-B receptor 2	P29323	2048	EPHB2
b2-Microglobulin	2.660	8.0E-03	0.019	-3.662	6.2E-01	Beta-2-microglobulin	P61769	567	B2M
resistin	2.636	8.6E-03	0.021	-3.725	6.2E-01	Resistin	Q9HD89	56729	RETN

Table S11

<b>Table S11: List of association of protein variables with 2 % oxygen desaturation event index</b>									
vars	t	P.Value	logFC	B	5%FDR P	TargetFullName	UniProt	GeneID	Symbol
Laminin	4.258	2.3809E-05	0.005	-0.040	0.0230	Laminin	P25391, P07942, P11047	284217 3912 3915	LAMA1 LAMB1 LAMC1
UNC5H4	-4.116	4.3778E-05	-0.006	-0.620	0.0230	Netrin receptor UNC5D	Q6UXZ4	137970	UNC5D
tPA	4.069	5.3312E-05	0.005	-0.807	0.0230	Tissue-type plasminogen activator	P00750	5327	PLAT
Aminoacylase-1	3.757	0.00019	0.010	-1.999	0.0609	Aminoacylase-1	Q03154	95	ACY1
HPLN1	3.583	0.00037	0.005	-2.627	0.0951	Hyaluronan and proteoglycan link protein 1	P10915	1404	HAPLN1
HCK	3.509	0.00048	0.002	-2.883	0.1042	Tyrosine-protein kinase HCK	P08631	3055	HCK
MMP-12	3.316	0.00097	0.007	-3.533	0.1794	Macrophage metalloelastase	P39900	4321	MMP12
Integrin a1b1	3.237	0.00127	0.006	-3.785	0.2061	Integrin alpha-I: beta-1 complex	P56199, P05556	3672 3688	ITGA1 ITGB1
Angiotensinogen	-3.015	0.00267	-0.005	-4.469	0.3343	Angiotensinogen	P01019	183	AGT
IGFBP-1	-3.045	0.00243	-0.011	-4.381	0.3343	Insulin-like growth factor-binding protein 1	P08833	3484	IGFBP1
MCP-2	2.974	0.00306	0.005	-4.593	0.3343	C-C motif chemokine 8	P80075	6355	CCL8
bFGF-R	-2.970	0.00309	-0.003	-4.603	0.3343	Fibroblast growth factor receptor 1	P11362	2260	FGFR1
Stanniocalcin-1	2.935	0.00346	0.004	-4.705	0.3453	Stanniocalcin-1	P52823	6781	STC1
Midkine	-2.873	0.00420	-0.007	-4.882	0.3894	Midkine	P21741	4192	MDK
MMP-7	2.752	0.00611	0.004	-5.221	0.4862	Matrilysin	P09237	4316	MMP7
Mn SOD	-2.752	0.00610	-0.003	-5.220	0.4862	Superoxide dismutase [Mn], mitochondrial	P04179	6648	SOD2
SLIK5	-2.737	0.00637	-0.003	-5.259	0.4862	SLIT and NTRK-like protein 5	O94991	26050	SLITRK5
TECK	2.715	0.00682	0.007	-5.320	0.4911	C-C motif chemokine 25	O15444	6370	CCL25

Table S12

<b>Table S12: List of association of protein variables with mean oxygen saturation level during sleep (Mean SaO2 %)</b>									
<b>vars</b>	<b>t</b>	<b>P.Value</b>	<b>logFC</b>	<b>B</b>	<b>5%FDR P</b>	<b>TargetFullName</b>	<b>UniProt</b>	<b>GeneID</b>	<b>Symbol</b>
NovH	-4.448	1.00949E-05	-2.501	3.027	0.013	Protein NOV homolog	P48745	4856	NOV
UNC5H4	4.267	2.25044E-05	3.886	2.340	0.015	Netrin receptor UNC5D	Q6UXZ4	137970	UNC5D
CD40 ligand, soluble	-3.619	0.0003	-3.887	0.095	0.114	CD40 ligand	P29965	959	CD40LG
MCP-2	-3.542	0.0004	-3.499	-0.149	0.114	C-C motif chemokine 8	P80075	6355	CCL8
Prothrombin	3.533	0.0004	3.775	-0.177	0.114	Prothrombin	P00734	2147	F2
TBP	-3.445	0.0006	-2.261	-0.448	0.131	TATA-box-binding protein	P20226	6908	TBP
CLC4K	-3.320	0.0009	-2.011	-0.821	0.143	C-type lectin domain family 4 member K	Q9UJ71	50489	CD207
LD78-beta	-3.296	0.0010	-2.624	-0.893	0.143	C-C motif chemokine 3-like 1	P16619	414062	CCL3L1
MCP-1	-3.302	0.0010	-2.952	-0.874	0.143	C-C motif chemokine 2	P13500	6347	CCL2
TARC	-3.277	0.0011	-5.581	-0.948	0.143	C-C motif chemokine 17	Q92583	6361	CCL17
Glutamate carboxypeptidase	-3.186	0.0015	-2.034	-1.208	0.178	Cytosolic non-specific dipeptidase	Q96KP4	55748	CNDP2
GV	-3.071	0.0022	-1.757	-1.527	0.204	Calcium-dependent phospholipase A2	P39877	5322	PLA2G5
Insulin	-3.052	0.0024	-3.681	-1.578	0.204	Insulin	P01308	3630	INS
NET4	-3.079	0.0022	-1.646	-1.505	0.204	Netrin-4	Q9HB63	59277	NTN4
PARC	-3.066	0.0023	-4.352	-1.542	0.204	C-C motif chemokine 18	P55774	6362	CCL18
EMAP-2	-3.012	0.0027	-3.044	-1.687	0.205	Endothelial monocyte-activating polypeptide 2	Q12904	9255	AIMP1
GNS	-2.993	0.0029	-2.751	-1.738	0.205	N-acetylglucosamine-6-sulfatase	P15586	2799	GNS
NKp44	-2.977	0.0030	-1.536	-1.779	0.205	Natural cytotoxicity triggering receptor 2	O95944	9436	NCR2

Table S13

<b>Table S13: List of association of protein variables with low oxygen saturation level during sleep (Low SaO<sub>2</sub>)</b>									
<b>vars</b>	<b>t</b>	<b>P.Value</b>	<b>logFC</b>	<b>B</b>	<b>5%FDR P</b>	<b>TargetFullName</b>	<b>UniProt</b>	<b>GeneID</b>	<b>Symbol</b>
UNC5H4	4.941	9.7187E-07	1.223	4.817	0.001	Netrin receptor UNC5D	Q6UXZ4	137970	UNC5D
tPA	-3.936	9.09599E-05	-0.963	1.052	0.059	Tissue-type plasminogen activator	P00750	5327	PLAT
IL-17 RD	-3.794	0.00016	-0.725	0.584	0.070	Interleukin-17 receptor D	Q8NFM7	54756	IL17RD
MIP-3a	-3.512	0.00047	-1.025	-0.296	0.154	C-C motif chemokine 20	P78556	6364	CCL20
NET1	-3.339	0.00089	-0.947	-0.802	0.192	Netrin-1	O95631	9423	NTN1
Nr-CAM	3.338	0.00089	1.125	-0.805	0.192	Neuronal cell adhesion molecule	Q92823	4897	NRCAM
EPI	-2.919	0.00362	-0.962	-1.928	0.467	Epiregulin	O14944	2069	EREG
IGFBP-1	2.973	0.00305	1.982	-1.793	0.467	Insulin-like growth factor-binding protein 1	P08833	3484	IGFBP1
NCAM-120	2.891	0.00396	0.630	-1.999	0.467	Neural cell adhesion molecule 1, 120 kDa isoform	P13591	4684	NCAM1
NRX3B	2.921	0.00360	0.585	-1.923	0.467	Neurexin-3-beta	Q9HDB5	9369	NRXN3
XPNPEP1	-2.954	0.00324	-0.933	-1.840	0.467	Xaa-Pro aminopeptidase 1	Q9NQW7	7511	XPNPEP1
FCN1	-2.826	0.00485	-0.713	-2.159	0.524	Ficolin-1	O00602	2219	FCN1
Aminoacylase-1	-2.656	0.00809	-1.257	-2.560	0.549	Aminoacylase-1	Q03154	95	ACY1
Cathepsin D	-2.628	0.00877	-1.160	-2.623	0.549	Cathepsin D	P07339	1509	CTSD
Factor B	-2.717	0.00676	-0.418	-2.420	0.549	Complement factor B	P00751	629	CFB
Factor I	-2.678	0.00758	-0.369	-2.509	0.549	Complement factor I	P05156	3426	CFI
GPDA	-2.632	0.00867	-1.410	-2.614	0.549	Glycerol-3-phosphate dehydrogenase [NAD(+)], cytoplasmic	P21695	2819	GPD1
MAPK14	-2.624	0.00889	-0.467	-2.633	0.549	Mitogen-activated protein kinase 14	Q16539	1432	MAPK14

Table S14

<b>Table S14: List of association of protein variables with pre and post CPAP intervention, paired significance analysis of microarrays (SAMR) was performed</b>						
<b>Gene Name</b>	<b>Score (d)</b>	<b>Numerator (r)</b>	<b>Denominator (s+s0)</b>	<b>Fold Change</b>	<b>q-value (%)</b>	<b>p.values permutation</b>
IGFBP-3	3.144	0.057	0.018	1.040	0.000	0.0013
LEAP-1	-2.993	-0.136	0.045	0.910	0.000	0.0016
BMP-1	2.693	0.048	0.018	1.034	0.000	0.0028
Siglec-9	-2.495	-0.082	0.033	0.944	26.590	0.0046
CLC7A	2.208	0.036	0.016	1.025	61.577	0.0101
NID2	2.193	0.044	0.020	1.031	61.577	0.0106
3HAO	2.118	0.050	0.024	1.036	61.577	0.0132
Trypsin 2	2.045	0.047	0.023	1.033	61.577	0.0163
Nogo Receptor	2.019	0.036	0.018	1.025	61.577	0.0175
Angiogenin	2.019	0.066	0.033	1.047	61.577	0.0175
Renin	1.988	0.064	0.032	1.045	61.577	0.0191
RANTES	1.968	0.129	0.066	1.094	61.577	0.0202
Corticotropin-lipotropin	-1.954	-0.097	0.050	0.935	26.590	0.0210
RET	1.909	0.040	0.021	1.028	61.577	0.0238
HCC-1	1.907	0.039	0.020	1.027	61.577	0.0239
PDGF-BB	1.888	0.132	0.070	1.096	61.577	0.0253
MDM2	1.857	0.028	0.015	1.019	61.577	0.0275
PF-4	1.828	0.088	0.048	1.063	61.577	0.0297
GDF2	1.817	0.046	0.026	1.033	61.577	0.0306
Trypsin	1.798	0.050	0.028	1.035	61.577	0.0323
SEPR	1.726	0.030	0.017	1.021	73.990	0.0393
CD27	1.725	0.064	0.037	1.046	73.990	0.0394
MMP-1	1.705	0.060	0.035	1.042	73.990	0.0416
NG36	1.704	0.033	0.019	1.023	73.990	0.0417
Histone H1.2	-1.694	-0.090	0.053	0.940	26.590	0.0428
IL-1Ra	-1.672	-0.068	0.041	0.954	26.590	0.0454
BDNF	1.640	0.042	0.025	1.029	82.725	0.0494
ATPO	1.638	0.097	0.059	1.069	82.725	0.0496



**Table S15: Confusion matrix of the 3 models trained to predict moderate to severe apnea (OAHl  $\geq 15$ ) vs controls/mild (OAHl  $< 15$ )**

Model1 ; includes somascan proteins , age, gender and BMI

Predicted		TRUE	
		0	1
0	65	22	
1	15	62	

Model2; Includes only somascan proteins

Predicted		TRUE	
		0	1
0	63	24	
1	15	62	

Model3 includes only age, gender and BMI

Predicted		TRUE	
		0	1
0	58	29	
1	23	54	

Table S16

<b>Table S16: Full list of association of protein variables with age of sample (years from sample draw to assay)</b>										
<b>vars</b>	<b>logFC</b>	<b>AveExpr</b>	<b>t</b>	<b>P.Value</b>	<b>adj.P.Val</b>	<b>B</b>	<b>TargetFullName</b>	<b>UniProt</b>	<b>GeneID</b>	<b>Symbol</b>
Midkine	4.716	14.305	16.437	1.34E-51	1.74E-48	106.334	Midkine	P21741	4192	MDK
B7-H2	-2.144	11.665	-12.455	2.6E-32	1.68E-29	62.541	ICOS ligand	O75144	23308	ICOSLG
Azurocidin	-3.291	9.250	-12.395	4.79E-32	2.07E-29	61.938	Azurocidin	P20160	566	AZU1
Proteinase-3	-3.431	13.274	-11.416	8.36E-28	2.71E-25	52.319	Myeloblastin	P24158	5657	PRTN3
BARK1	-2.301	11.592	-11.043	2.99E-26	7.76E-24	48.799	beta-adrenergic receptor kinase 1	P25098	156	ADRBK1
MEK1	-0.711	9.362	-10.482	5.57E-24	1.2E-21	43.657	Dual specificity mitogen-activated protein kinase kinase 1	Q02750	5604	MAP2K1
HSP70 protein 8	-1.324	11.370	-10.146	1.15E-22	2.14E-20	40.678	Heat shock cognate 71 kDa protein	P11142	3312	HSPA8
alpha-1-antichymotrypsin complex	-2.263	13.407	-10.022	3.49E-22	5.65E-20	39.592	Alpha-1- antichymotrypsin complex	P01011	12	SERPINA3
Elastase	-1.484	8.170	-9.958	6.14E-22	8.85E-20	39.035	Neutrophil elastase	P08246	1991	ELANE
COX-2	-1.436	10.300	-9.843	1.69E-21	2.19E-19	38.043	Prostaglandin G/H synthase 2	P35354	5743	PTGS2
SP-D	-4.081	14.396	-9.803	2.37E-21	2.8E-19	37.708	Pulmonary surfactant- associated protein D	P35247	6441	SFTPD
IMDH1	-3.250	12.001	-9.670	7.52E-21	7.74E-19	36.575	Inosine-5'- monophosphate dehydrogenase 1	P20839	3614	IMPDH1
Myeloperoxidase	-2.481	15.055	-9.667	7.76E-21	7.74E-19	36.544	Myeloperoxidase	P05164	4353	MPO
Lactoferrin	-3.162	14.858	-9.613	1.23E-20	1.14E-18	36.089	Lactotransferrin	P02788	4057	LTF
hnRNP A2/B1	-2.417	12.616	-9.563	1.9E-20	1.64E-18	35.666	Heterogeneous nuclear ribonucleoproteins A2/B1	P22626	3181	HNRNPA2 B1
S100A12	-1.717	10.709	-9.215	3.56E-19	2.88E-17	32.790	Protein S100-A12	P80511	6283	S100A12
LIGHT	-1.667	11.395	-8.997	2.15E-18	1.64E-16	31.027	Tumor necrosis factor ligand superfamily member 14	O43557	8740	TNFSF14

Table S16

vars	logFC	AveExpr	t	P.Value	adj.P.Val	B	TargetFullName	UniProt	GeneID	Symbol
MMP-8	-2.747	13.083	-8.531	8.93E-17	6.44E-15	27.373	Neutrophil collagenase	P22894	4317	MMP8
OLR1	-2.361	9.307	-8.484	1.29E-16	8.78E-15	27.016	Oxidized low-density lipoprotein receptor 1	P78380	4973	OLR1
Dynactin subunit 2	-0.591	11.041	-8.470	1.44E-16	9.34E-15	26.906	Dynactin subunit 2	Q13561	10540	DCTN2
RS7	-1.825	11.181	-8.302	5.27E-16	3.26E-14	25.635	40S ribosomal protein S7	P62081	6201	RPS7
AIF1	-0.691	12.646	-8.187	1.26E-15	7.43E-14	24.782	Allograft inflammatory factor 1	P55008	199	AIF1
Alpha enolase	-1.871	13.824	-8.044	3.7E-15	2.09E-13	23.728	Alpha-enolase	P06733	2023	ENO1
UBC9	-1.575	10.833	-8.036	3.93E-15	2.13E-13	23.669	SUMO-conjugating enzyme UBC9	P63279	7329	UBE2I
hnRNP A/B	-1.603	10.355	-8.028	4.18E-15	2.17E-13	23.610	Heterogeneous nuclear ribonucleoprotein A/B	Q99729	3182	HNRNPAB
14-3-3 protein beta/alpha	-1.653	12.707	-7.987	5.66E-15	2.82E-13	23.313	14-3-3 protein beta/alpha	P31946	7529	YWHAB
GP114	-0.670	9.914	-7.889	1.17E-14	5.6E-13	22.606	Adhesion G-protein coupled receptor G5	Q8IZF4	221188	ADGRG5
IL-2	-1.211	11.735	-7.880	1.25E-14	5.78E-13	22.540	Interleukin-2	P60568	3558	IL2
Nucleoside diphosphate kinase A	-0.894	11.049	-7.825	1.87E-14	8.36E-13	22.145	Nucleoside diphosphate kinase A	P15531	4830	NME1
Lipocalin 2	-1.571	7.698	-7.790	2.42E-14	1.05E-12	21.893	Neutrophil gelatinase-associated lipocalin	P80188	3934	LCN2
MEPE	-0.785	8.727	-7.778	2.65E-14	1.11E-12	21.806	Matrix extracellular phosphoglycoprotein	Q9NQ76	56955	MEPE
FGF-12	-0.669	8.604	-7.751	3.2E-14	1.3E-12	21.620	Fibroblast growth factor 12	P61328	2257	FGF12
TBP	-0.849	9.632	-7.726	3.83E-14	1.51E-12	21.444	TATA-box-binding protein	P20226	6908	TBP
HXK2	-2.359	10.755	-7.685	5.15E-14	1.97E-12	21.155	Hexokinase-2	P52789	3099	HK2
PHI	-1.407	9.351	-7.595	9.87E-14	3.66E-12	20.520	Glucose-6-phosphate isomerase	P06744	2821	GPI

Table S16

vars	logFC	AveExpr	t	P.Value	adj.P.Val	B	TargetFullName	UniProt	GeneID	Symbol
ARG11	-1.963	11.732	-7.544	1.41E-13	5.09E-12	20.169	Arginase-1	P05089	383	ARG1
eIF-5	-1.392	11.058	-7.486	2.14E-13	7.37E-12	19.765	Eukaryotic translation initiation factor 5	P55010	1983	EIF5
ERK-1	-1.256	9.462	-7.484	2.16E-13	7.37E-12	19.756	Mitogen-activated protein kinase 3	P27361	5595	MAPK3
IL-10 Rb	-0.441	11.305	-7.405	3.77E-13	1.25E-11	19.211	Interleukin-10 receptor subunit beta	Q08334	3588	IL10RB
SUMO3	-1.896	10.802	-7.386	4.29E-13	1.39E-11	19.086	Small ubiquitin-related modifier 3	P55854	6613	SUMO3
14-3-3	-0.790	10.510	-7.341	5.87E-13	1.86E-11	18.780	14-3-3 protein family	P31946, P62258, P61981, Q04917, P27348, P63104, P31947	7529, 7531	YWHAB,Y WHAE,YW HAG,YWH AH,YWHA Q,YWHAZ, SFN
BPI	-3.185	12.767	-7.303	7.67E-13	2.37E-11	18.519	Bactericidal permeability-increasing protein	P17213	671	BPI
PTN	0.811	10.257	7.214	1.41E-12	4.26E-11	17.925	Pleiotrophin	P21246	5764	PTN
PDXK	-0.982	11.505	-7.196	1.6E-12	4.72E-11	17.802	Pyridoxal kinase	O00764	8566	PDXK
ASGR1	-0.782	10.420	-7.129	2.51E-12	7.24E-11	17.363	Asialoglycoprotein receptor 1	P07306	432	ASGR1
TCTP	-1.862	12.432	-7.123	2.63E-12	7.41E-11	17.319	Translationally-controlled tumor protein	P13693	7178	TPT1
IFN-lambda 1	-0.857	8.063	-7.022	5.16E-12	1.43E-10	16.661	Interferon lambda-1	Q8IU54	282618	IFNL1
DLL4	-1.129	8.297	-7.009	5.65E-12	1.53E-10	16.574	Delta-like protein 4	Q9NR61	54567	DLL4
UFC1	-1.132	13.502	-6.994	6.26E-12	1.66E-10	16.474	Ubiquitin-fold modifier-conjugating enzyme 1	Q9Y3C8	51506	UFC1
H31	-1.526	11.141	-6.988	6.5E-12	1.69E-10	16.438	Histone H3.1	P68431	8350	HIST1H3A
Caspase-10	-0.613	13.188	-6.946	8.57E-12	2.18E-10	16.169	Caspase-10	Q92851	843	CASP10

Table S16

vars	logFC	AveExpr	t	P.Value	adj.P.Val	B	TargetFullName	UniProt	GeneID	Symbol
Protein disulfide-isomerase	-0.709	8.650	-6.823	1.93E-11	4.82E-10	15.378	Protein disulfide-isomerase	P07237	5034	P4HB
Glutathione S-transferase Pi	-0.466	9.942	-6.702	4.22E-11	1.03E-09	14.618	Glutathione S-transferase P	P09211	2950	GSTP1
DEAD-box protein 19B	-1.263	11.218	-6.622	7.06E-11	1.69E-09	14.118	ATP-dependent RNA helicase DDX19B	Q9UMR2	11269	DDX19B
HINT1	-1.360	11.218	-6.612	7.52E-11	1.77E-09	14.057	Histidine triad nucleotide-binding protein 1	P49773	3094	HINT1
PKB beta	-0.492	9.321	-6.574	9.58E-11	2.22E-09	13.821	RAC-beta serine/threonine-protein kinase	P31751	208	AKT2
Enterokinase	-0.677	8.853	-6.560	1.04E-10	2.38E-09	13.737	Enteropeptidase	P98073	5651	TMPRSS15
H2A3	-2.782	12.392	-6.527	1.29E-10	2.88E-09	13.533	Histone H2A type 3	Q7L7L0		HIST3H2A
Sorting nexin 4	-1.137	11.270	-6.484	1.68E-10	3.69E-09	13.276	Sorting nexin-4	O95219	8723	SNX4
Ku70	-0.852	8.952	-6.448	2.1E-10	4.55E-09	13.057	X-ray repair cross-complementing protein 6	P12956	2547	XRCC6
SHP-2	-1.854	12.535	-6.390	3.02E-10	6.42E-09	12.707	Tyrosine-protein phosphatase non-receptor type 11	Q06124	5781	PTPN11
IL-16	-0.400	8.924	-6.386	3.1E-10	6.48E-09	12.681	Interleukin-16	Q14005	3603	IL16
PKB a/b/g	-0.536	10.945	-6.360	3.63E-10	7.47E-09	12.529	RAC-alpha/beta/gamma serine/threonine-protein kinase	P31749 P31751 Q9Y243	207 208 10	AKT1 AKT2 AKT3
HCK	-0.468	8.314	-6.341	4.08E-10	8.26E-09	12.416	Tyrosine-protein kinase HCK	P08631	3055	HCK
CFC1	-0.632	11.681	-6.301	5.22E-10	1.04E-08	12.176	Cryptic protein	P0CG37	55997	CFC1
IMB1	-2.164	13.273	-6.253	7E-10	1.38E-08	11.891	Importin subunit beta-1	Q14974	3837	KPNB1

Table S16

vars	logFC	AveExpr	t	P.Value	adj.P.Val	B	TargetFullName	UniProt	GeneID	Symbol
DRG-1	-2.217	9.304	-6.203	9.44E-10	1.83E-08	11.602	Vacuolar protein sorting-associated protein VTA1 homolog	Q9NP79	51534	VTA1
sICAM-2	-0.495	11.394	-6.179	1.1E-09	2.09E-08	11.457	Intercellular adhesion molecule 2	P13598	3384	ICAM2
annexin I	-1.631	11.343	-6.155	1.26E-09	2.37E-08	11.320	Annexin A1	P04083	301	ANXA1
FGF-17	-0.485	8.626	-6.152	1.28E-09	2.38E-08	11.303	Fibroblast growth factor 17	O60258	8822	FGF17
Caspase-3	-1.622	12.620	-6.133	1.44E-09	2.63E-08	11.192	Caspase-3	P42574	836	CASP3
RSK-like protein kinase	-0.761	7.795	-6.126	1.5E-09	2.71E-08	11.151	Ribosomal protein S6 kinase alpha-5	O75582	9252	RPS6KA5
PSME1	-0.625	11.251	-6.091	1.85E-09	3.29E-08	10.950	Proteasome activator complex subunit 1	Q06323	5720	PSME1
Triosephosphate isomerase	-1.381	12.018	-6.080	1.97E-09	3.46E-08	10.888	Triosephosphate isomerase	P60174	7167	TPI1
CDC37	-0.740	9.104	-6.059	2.24E-09	3.87E-08	10.766	Hsp90 co-chaperone Cdc37	Q16543	11140	CDC37
RBM39	-0.852	9.799	-6.046	2.42E-09	4.12E-08	10.691	RNA-binding protein 39	Q14498	9584	RBM39
UFM1	-1.815	12.728	-5.989	3.38E-09	5.69E-08	10.367	Ubiquitin-fold modifier 1	P61960	51569	UFM1
ARI3A	-0.834	9.475	-5.983	3.49E-09	5.8E-08	10.336	AT-rich interactive domain-containing protein 3A	Q99856	1820	ARID3A
NSF1C	-2.161	10.935	-5.963	3.92E-09	6.44E-08	10.223	NSFL1 cofactor p47	Q9UNZ2	55968	NSFL1C
CRK	-1.037	13.216	-5.955	4.12E-09	6.68E-08	10.175	Adapter molecule crk	P46108	1398	CRK
PDPK1	-1.720	9.764	-5.943	4.4E-09	6.97E-08	10.112	3-phosphoinositide-dependent protein kinase 1	O15530	5170	PDPK1
CK2-A1:B	-1.865	12.307	-5.943	4.41E-09	6.97E-08	10.110	Casein kinase II 2-alpha:2-beta heterotetramer	P68400 P67870	1457 1460	CSNK2A1 CSNK2B

Table S16

vars	logFC	AveExpr	t	P.Value	adj.P.Val	B	TargetFullName	UniProt	GeneID	Symbol
CAPG	-1.117	10.442	-5.928	4.82E-09	7.54E-08	10.023	Macrophage-capping protein	P40121	822	CAPG
CNTF	-0.452	8.189	-5.911	5.32E-09	8.21E-08	9.928	Ciliary neurotrophic factor	P26441	1270	CNTF
PGRP-S	-1.866	10.383	-5.885	6.17E-09	9.41E-08	9.786	Peptidoglycan recognition protein 1	O75594	8993	PGLYRP1
CSK	-1.771	10.495	-5.861	7.07E-09	1.07E-07	9.653	Tyrosine-protein kinase CSK	P41240	1445	CSK
Transketolase	-1.530	14.240	-5.852	7.45E-09	1.11E-07	9.603	Transketolase	P29401	7086	TKT
SLPI	0.668	14.786	5.844	7.82E-09	1.15E-07	9.555	Antileukoproteinase	P03973	6590	SLPI
GSK-3 alpha/beta	-0.983	11.578	-5.838	8.09E-09	1.18E-07	9.523	Glycogen synthase kinase-3 alpha/beta	P49840 P49841	2931 2932	GSK3A GSK3B
CDK8/cyclin C	-0.652	10.224	-5.828	8.57E-09	1.23E-07	9.468	Cyclin-dependent kinase 8:Cyclin-C complex	P49336 P24863	1024 892	CDK8 CCNC
ERBB4	-0.580	8.025	-5.827	8.6E-09	1.23E-07	9.464	Receptor tyrosine-protein kinase erbB-4	Q15303	2066	ERBB4
Cyclophilin A	-1.389	15.996	-5.813	9.32E-09	1.31E-07	9.386	Peptidyl-prolyl cis-trans isomerase A	P62937	5478	PPIA
IF4G2	-1.655	10.539	-5.798	1.01E-08	1.41E-07	9.305	Eukaryotic translation initiation factor 4 gamma 2	P78344	1982	EIF4G2
JNK2	-0.633	11.901	-5.790	1.06E-08	1.47E-07	9.258	Mitogen-activated protein kinase 9	P45984	5601	MAPK9
IL-8	-1.480	10.776	-5.757	1.28E-08	1.75E-07	9.080	Interleukin-8	P10145	3576	CXCL8
PEX5	-0.824	9.797	-5.752	1.31E-08	1.78E-07	9.054	Peroxisomal targeting signal 1 receptor	P50542	5830	PEX5
a-Synuclein	-2.186	7.548	-5.739	1.42E-08	1.9E-07	8.979	Alpha-synuclein	P37840	6622	SNCA
UBE2N	-1.964	11.116	-5.720	1.58E-08	2.09E-07	8.876	Ubiquitin-conjugating enzyme E2 N	P61088	7334	UBE2N
HDGR2	-0.444	10.108	-5.705	1.71E-08	2.24E-07	8.799	Hepatoma-derived growth factor-related protein 2	Q7Z4V5	84717	HDGFRP2

Table S16

vars	logFC	AveExpr	t	P.Value	adj.P.Val	B	TargetFullName	UniProt	GeneID	Symbol
STAT3	-0.972	9.422	-5.688	1.89E-08	2.45E-07	8.703	Signal transducer and activator of transcription 3	P40763	6774	STAT3
TRY3	-0.463	9.622	-5.683	1.94E-08	2.49E-07	8.678	Trypsin-3	P35030	5646	PRSS3
PTK6	-0.883	8.851	-5.670	2.09E-08	2.66E-07	8.606	Protein-tyrosine kinase 6	Q13882	5753	PTK6
EPO-R	-0.586	8.862	-5.666	2.13E-08	2.68E-07	8.588	Erythropoietin receptor	P19235	2057	EPOR
RPS6KA3	-1.163	11.027	-5.662	2.18E-08	2.72E-07	8.565	Ribosomal protein S6 kinase alpha-3	P51812	6197	RPS6KA3
3HIDH	-1.211	10.248	-5.657	2.25E-08	2.78E-07	8.537	3-hydroxyisobutyrate dehydrogenase, mitochondrial	P31937	11112	HIBADH
CBG	-0.583	10.272	-5.635	2.53E-08	3.1E-07	8.422	Corticosteroid-binding globulin	P08185	866	SERPINA6
FAK1	-0.811	8.767	-5.632	2.57E-08	3.11E-07	8.406	Focal adhesion kinase 1	Q05397	5747	PTK2
SHC1	-1.232	9.242	-5.631	2.59E-08	3.11E-07	8.399	SHC-transforming protein 1	P29353	6464	SHC1
AN32B	1.141	8.049	5.583	3.39E-08	4.03E-07	8.141	Acidic leucine-rich nuclear phosphoprotein 32 family member B	Q92688	10541	ANP32B
ADAM12	-0.539	10.933	-5.573	3.57E-08	4.21E-07	8.090	Disintegrin and metalloproteinase domain-containing protein 12	O43184	8038	ADAM12
KIRR3	-0.453	8.800	-5.555	3.94E-08	4.6E-07	7.997	Kin of IRRE-like protein 3	Q8IZU9	84623	KIRREL3
sTie-2	-0.669	11.449	-5.499	5.36E-08	6.2E-07	7.700	Angiopoietin-1 receptor, soluble	Q02763	7010	TEK



Table S16

vars	logFC	AveExpr	t	P.Value	adj.P.Val	B	TargetFullName	UniProt	GeneID	Symbol
PAFAH beta subunit	-1.110	11.928	-5.471	6.23E-08	7.12E-07	7.555	Platelet-activating factor acetylhydrolase IB subunit beta	P68402	5049	PAFAH1B2
METAP1	-1.292	10.532	-5.470	6.25E-08	7.12E-07	7.550	Methionine aminopeptidase 1	P53582	23173	METAP1
M2-PK	-1.242	12.668	-5.441	7.31E-08	8.25E-07	7.400	Pyruvate kinase PKM	P14618	5315	PKM2
eIF-4H	-1.774	10.603	-5.435	7.56E-08	8.45E-07	7.368	Eukaryotic translation initiation factor 4H	Q15056	7458	EIF4H
Phosphoglycerate mutase 1	-3.094	12.494	-5.415	8.42E-08	9.34E-07	7.264	Phosphoglycerate mutase 1	P18669	5223	PGAM1
NAGK	-0.875	9.564	-5.412	8.56E-08	9.41E-07	7.248	N-acetyl-D-glucosamine kinase	Q9UJ70	55577	NAGK
NUDC3	-1.037	9.083	-5.390	9.66E-08	1.05E-06	7.132	NudC domain-containing protein 3	Q8IVD9	23386	NUDCD3
STK16	-0.578	11.897	-5.387	9.77E-08	1.06E-06	7.121	Serine/threonine-protein kinase 16	O75716	8576	STK16
PRKACA	-1.248	12.267	-5.359	1.13E-07	1.21E-06	6.979	cAMP-dependent protein kinase catalytic subunit alpha	P17612	5566	PRKACA
Coagulation Factor IX	0.660	13.357	5.302	1.53E-07	1.63E-06	6.687	Coagulation factor IX	P00740	2158	F9
SNAA	-1.739	10.983	-5.276	1.76E-07	1.86E-06	6.556	Alpha-soluble NSF attachment protein	P54920	8775	NAPA
resistin	-0.748	11.187	-5.250	2.02E-07	2.11E-06	6.423	Resistin	Q9HD89	56729	RETN
TNF-a	-0.515	9.358	-5.219	2.38E-07	2.47E-06	6.267	Tumor necrosis factor	P01375	7124	TNF
MAPKAPK3	-0.518	10.116	-5.188	2.79E-07	2.87E-06	6.114	MAP kinase-activated protein kinase 3	Q16644	7867	MAPKAPK3
IFN-aA	-0.536	7.586	-5.184	2.84E-07	2.9E-06	6.095	Interferon alpha-2	P01563	3440	IFNA2
Carbonic anhydrase VII	-0.628	9.163	-5.133	3.69E-07	3.74E-06	5.846	Carbonic anhydrase 7	P43166	766	CA7
IL-20	-0.439	9.086	-5.108	4.21E-07	4.23E-06	5.719	Interleukin-20	Q9NYY1	50604	IL20
Transgelin-2	-0.887	12.648	-5.074	5E-07	4.98E-06	5.554	Transgelin-2	P37802	8407	TAGLN2
Nidogen	0.695	12.748	5.059	5.39E-07	5.33E-06	5.482	Nidogen-1	P14543	4811	NID1

Table S16

vars	logFC	AveExpr	t	P.Value	adj.P.Val	B	TargetFullName	UniProt	GeneID	Symbol
STAT1	-1.128	10.699	-5.039	5.95E-07	5.84E-06	5.387	Signal transducer and activator of transcription 1-alpha/beta	P42224	6772	STAT1
MED-1	0.543	16.429	5.037	6.01E-07	5.86E-06	5.378	Mediator of RNA polymerase II transcription subunit 1	Q15648	5469	MED1
YES	-0.620	10.125	-5.031	6.21E-07	5.99E-06	5.346	Tyrosine-protein kinase Yes	P07947	7525	YES1
Coagulation Factor VII	0.696	9.378	5.030	6.24E-07	5.99E-06	5.342	Coagulation factor VII	P08709	2155	F7
CAMK2A	-0.665	9.443	-5.022	6.51E-07	6.2E-06	5.301	Calcium/calmodulin-dependent protein kinase type II subunit alpha	Q9UQM7	815	CAMK2A
Ubiquitin	-1.119	14.706	-5.016	6.7E-07	6.34E-06	5.273	Ubiquitin	P62979	6233	RPS27A
SBDS	-1.184	11.705	-4.995	7.45E-07	7E-06	5.172	Ribosome maturation protein SBDS	Q9Y3A5	51119	SBDS
KPCI	-0.730	11.055	-4.984	7.87E-07	7.34E-06	5.119	Protein kinase C iota type	P41743	5584	PRKCI
S100A4	-1.363	11.359	-4.977	8.12E-07	7.52E-06	5.090	Protein S100-A4	P26447	6275	S100A4
HGF	-0.815	11.305	-4.967	8.56E-07	7.87E-06	5.039	Hepatocyte growth factor	P14210	3082	HGF
Ubiquitin+1	-1.404	10.088	-4.952	9.22E-07	8.42E-06	4.968	Ubiquitin+1, truncated mutation for UbB	P62979	6233	RPS27A
GRB2 adapter protein	-1.966	9.992	-4.949	9.33E-07	8.43E-06	4.956	Growth factor receptor-bound protein 2	P62993	2885	GRB2
PA2G4	-1.452	9.606	-4.949	9.36E-07	8.43E-06	4.953	Proliferation-associated protein 2G4	Q9UQ80	5036	PA2G4

Table S16

vars	logFC	AveExpr	t	P.Value	adj.P.Val	B	TargetFullName	UniProt	GeneID	Symbol
GOT1	-0.565	12.101	-4.940	9.76E-07	8.73E-06	4.914	Aspartate aminotransferase, cytoplasmic	P17174	2805	GOT1
4EBP2	-0.677	10.380	-4.934	1.01E-06	8.96E-06	4.881	Eukaryotic translation initiation factor 4E-binding protein 2	Q13542	1979	EIF4EBP2
DRR1	-0.460	8.509	-4.925	1.05E-06	9.28E-06	4.842	Protein FAM107A	O95990	11170	FAM107A
Cardiotrophin-1	-0.444	10.093	-4.911	1.13E-06	9.87E-06	4.777	Cardiotrophin-1	Q16619	1489	CTF1
Carbonic anhydrase XIII	-1.897	12.261	-4.908	1.14E-06	9.94E-06	4.763	Carbonic anhydrase 13	Q8N1Q1	377677	CA13
PTP-1C	-1.118	12.147	-4.897	1.21E-06	1.04E-05	4.710	Tyrosine-protein phosphatase non-receptor type 6	P29350	5777	PTPN6
CATC	-0.453	10.060	-4.886	1.27E-06	1.09E-05	4.659	Dipeptidyl peptidase 1	P53634	1075	CTSC
TGF-b3	-0.417	9.620	-4.879	1.32E-06	1.13E-05	4.622	Transforming growth factor beta-3	P10600	7043	TGFB3
PPAC	-1.927	11.414	-4.869	1.38E-06	1.17E-05	4.579	Low molecular weight phosphotyrosine protein phosphatase	P24666	52	ACP1
NDP kinase B	-1.554	12.722	-4.846	1.55E-06	1.31E-05	4.469	Nucleoside diphosphate kinase B	P22392	4831	NME2
SE6L2	-0.921	10.163	-4.824	1.73E-06	1.44E-05	4.368	Seizure 6-like protein 2	Q6UXD5	26470	SEZ6L2
Tropomyosin 4	-2.051	12.784	-4.801	1.93E-06	1.6E-05	4.262	Tropomyosin alpha-4 chain	P67936	7171	TPM4
CAMK2B	-0.779	10.161	-4.750	2.47E-06	2.03E-05	4.026	Calcium/calmodulin-dependent protein kinase type II subunit beta	Q13554	816	CAMK2B
DUS3	-1.401	11.018	-4.749	2.48E-06	2.03E-05	4.023	Dual specificity protein phosphatase 3	P51452	1845	DUSP3
Coagulation Factor IXab	0.692	12.855	4.745	2.53E-06	2.06E-05	4.004	Coagulation factor IXab	P00740	2158	F9

Table S16

vars	logFC	AveExpr	t	P.Value	adj.P.Val	B	TargetFullName	UniProt	GeneID	Symbol
Stress-induced-phosphoprotein 1	-1.227	11.561	-4.734	2.66E-06	2.16E-05	3.954	Stress-induced-phosphoprotein 1	P31948	10963	STIP1
SGTA	-1.348	10.422	-4.730	2.72E-06	2.19E-05	3.935	Small glutamine-rich tetratricopeptide repeat-containing protein alpha	O43765	6449	SGTA
Semaphorin 3A	-0.597	11.164	-4.722	2.83E-06	2.26E-05	3.898	Semaphorin-3A	Q14563	10371	SEMA3A
CATE	-1.201	9.905	-4.716	2.9E-06	2.31E-05	3.872	Cathepsin E	P14091	1510	CTSE
14-3-3 protein zeta/delta	-1.133	15.152	-4.707	3.03E-06	2.4E-05	3.832	14-3-3 protein zeta/delta	P63104	7534	YWHAZ
PDE7A	-0.426	9.705	-4.697	3.18E-06	2.5E-05	3.785	High affinity cAMP-specific 3',5'-cyclic phosphodiesterase 7A	Q13946	5150	PDE7A
FER	-1.682	8.744	-4.680	3.44E-06	2.69E-05	3.711	Tyrosine-protein kinase Fer	P16591	2241	FER
NID2	0.617	12.169	4.647	4.02E-06	3.12E-05	3.562	Nidogen-2	Q14112	22795	NID2
TACI	-0.413	11.183	-4.639	4.19E-06	3.23E-05	3.523	Tumor necrosis factor receptor superfamily member 13B	O14836	23495	TNFRSF13B
AMPK a2b2g1	-0.862	11.947	-4.629	4.37E-06	3.35E-05	3.482	AMP Kinase (alpha2beta2gamma1)	P54646 O43741 P54619	5563 5565	PRKAA2 PRKAB2 PRKAG1
TSP4	0.775	15.440	4.628	4.39E-06	3.35E-05	3.478	Thrombospondin-4	P35443	7060	THBS4
HSP 90a/b	-0.738	11.770	-4.627	4.43E-06	3.35E-05	3.470	Heat shock protein HSP 90-alpha/beta	P07900 P08238		HSP90AA1 HSP90AB1
Rab GDP dissociation inhibitor beta	-1.129	13.283	-4.626	4.45E-06	3.35E-05	3.466	Rab GDP dissociation inhibitor beta	P50395	2665	GDI2
HSP 90b	-0.740	14.297	-4.614	4.69E-06	3.51E-05	3.416	Heat shock protein HSP 90-beta	P08238	3326	HSP90AB1
BTK	-1.491	11.151	-4.608	4.84E-06	3.6E-05	3.386	Tyrosine-protein kinase BTK	Q06187	695	BTK

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MBD4	-0.552	10.124	-4.589	5.27E-06	3.9E-05	3.305	Methyl-CpG-binding domain protein 4	O95243	8930	MBD4
IGFBP-7	0.551	13.423	4.586	5.34E-06	3.94E-05	3.292	Insulin-like growth factor-binding protein 7	Q16270	3490	IGFBP7
EFNB1	-0.474	12.033	-4.577	5.57E-06	4.08E-05	3.252	Ephrin-B1	P98172	1947	EFNB1
NKp30	-0.585	9.294	-4.570	5.75E-06	4.19E-05	3.221	Natural cytotoxicity triggering receptor 3	O14931	259197	NCR3
BID	-0.714	10.607	-4.564	5.93E-06	4.29E-05	3.193	BH3-interacting domain death agonist	P55957	637	BID
MIP-5	-0.948	12.433	-4.548	6.37E-06	4.58E-05	3.124	C-C motif chemokine 15	Q16663	6359	CCL15
VAV	-1.749	12.151	-4.548	6.38E-06	4.58E-05	3.122	Proto-oncogene vav	P15498	7409	VAV1
Clusterin	-0.509	10.555	-4.533	6.85E-06	4.88E-05	3.055	Clusterin	P10909	1191	CLU
MIP-3a	-0.813	8.789	-4.531	6.91E-06	4.9E-05	3.047	C-C motif chemokine 20	P78556	6364	CCL20
BMP-7	-0.702	10.521	-4.516	7.38E-06	5.18E-05	2.984	Bone morphogenetic protein 7	P18075	655	BMP7
GPVI	-1.261	13.814	-4.515	7.43E-06	5.18E-05	2.978	Platelet glycoprotein VI	Q9HCN6	51206	GP6
FGF-10	-0.668	8.881	-4.515	7.43E-06	5.18E-05	2.977	Fibroblast growth factor 10	O15520	2255	FGF10
TNFSF18	-0.278	10.337	-4.513	7.5E-06	5.2E-05	2.969	Tumor necrosis factor ligand superfamily member 18	Q9UNG2	8995	TNFSF18
IL-15 Ra	-0.442	11.056	-4.496	8.09E-06	5.56E-05	2.897	Interleukin-15 receptor subunit alpha	Q13261	3601	IL15RA
MP2K3	-0.488	10.397	-4.496	8.1E-06	5.56E-05	2.896	Dual specificity mitogen-activated protein kinase kinase 3	P46734	5606	MAP2K3
Esterase D	-0.707	10.645	-4.473	8.99E-06	6.13E-05	2.797	S-formylglutathione hydrolase	P10768	2098	ESD

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Dtk	-0.355	10.553	-4.472	9.02E-06	6.13E-05	2.793	Tyrosine-protein kinase receptor TYRO3	Q06418	7301	TYRO3
LCMT1	-0.312	11.343	-4.465	9.31E-06	6.29E-05	2.763	Leucine carboxyl methyltransferase 1	Q9UIC8	51451	LCMT1
GP1BA	-0.463	10.992	-4.453	9.85E-06	6.62E-05	2.710	Platelet glycoprotein Ib alpha chain	P07359	2811	GP1BA
CAMK2D	-0.808	11.615	-4.439	1.05E-05	7.01E-05	2.651	Calcium/calmodulin-dependent protein kinase type II subunit delta	Q13557	817	CAMK2D
BCL2-like 1 protein	-0.361	10.386	-4.438	1.05E-05	7.02E-05	2.645	Bcl-2-like protein 1	Q07817	598	BCL2L1
CRIS3	-0.614	8.806	-4.413	1.18E-05	7.8E-05	2.539	Cysteine-rich secretory protein 3	P54108	10321	CRISP3
kallikrein 12	-0.431	12.158	-4.396	1.27E-05	8.38E-05	2.466	Kallikrein-12	Q9UKR0	43849	KLK12
JAM-C	-0.732	11.553	-4.388	1.32E-05	8.65E-05	2.432	Junctional adhesion molecule C	Q9BX67	83700	JAM3
ADAMTS-5	-0.346	8.588	-4.382	1.36E-05	8.83E-05	2.407	A disintegrin and metalloproteinase with thrombospondin motifs 5	Q9UNA0	11096	ADAMTS5
PCNA	-0.505	8.799	-4.373	1.41E-05	9.17E-05	2.367	Proliferating cell nuclear antigen	P12004	5111	PCNA
Arylsulfatase A	-0.444	10.399	-4.371	1.42E-05	9.18E-05	2.361	Arylsulfatase A	P15289	410	ARSA
MK08	-1.114	9.460	-4.370	1.43E-05	9.18E-05	2.357	Mitogen-activated protein kinase 8	P45983	5599	MAPK8
SEPR	0.432	10.040	4.364	1.47E-05	9.4E-05	2.330	Prolyl endopeptidase FAP	Q12884	2191	FAP
RNase H1	-0.941	8.282	-4.348	1.58E-05	0.0001	2.264	Ribonuclease H1	O60930	246243	RNASEH1
Cofilin-1	-0.450	11.399	-4.344	1.6E-05	0.000101	2.248	Cofilin-1	P23528	1072	CFL1
AK1A1	-0.867	11.280	-4.320	1.79E-05	0.000113	2.144	Alcohol dehydrogenase [NADP(+)]	P14550	10327	AKR1A1
Contactin-5	-0.440	9.748	-4.319	1.8E-05	0.000113	2.140	Contactin-5	O94779	53942	CNTN5

Table S16

vars	logFC	AveExpr	t	P.Value	adj.P.Val	B	TargetFullName	UniProt	GeneID	Symbol
CSRP3	-0.628	11.210	-4.301	1.94E-05	0.000121	2.065	Cysteine and glycine-rich protein 3	P50461	8048	CSRP3
Myokinase, human	-1.860	13.445	-4.295	1.99E-05	0.000124	2.042	Adenylate kinase isoenzyme 1	P00568	203	AK1
B7	-0.339	10.274	-4.283	2.1E-05	0.00013	1.994	T-lymphocyte activation antigen CD80	P33681	941	CD80
PSD7	-0.456	9.004	-4.281	2.12E-05	0.00013	1.985	26S proteasome non-ATPase regulatory subunit 7	P51665	5713	PSMD7
SARP-2	0.699	12.811	4.280	2.13E-05	0.00013	1.980	Secreted frizzled-related protein 1	Q8N474	6422	SFRP1
EDAR	-1.259	11.071	-4.279	2.14E-05	0.00013	1.977	Tumor necrosis factor receptor superfamily member EDAR	Q9UNE0	10913	EDAR
Antithrombin III	0.626	16.175	4.275	2.17E-05	0.000132	1.960	Antithrombin-III	P01008	462	SERPINC1
Vasoactive Intestinal Peptide	-0.548	8.531	-4.261	2.31E-05	0.000139	1.903	Vasoactive Intestinal Peptide	P01282	7432	VIP
Chymase	-0.462	10.231	-4.253	2.4E-05	0.000144	1.867	Chymase	P23946	1215	CMA1
MK13	-0.642	9.927	-4.248	2.45E-05	0.000146	1.847	Mitogen-activated protein kinase 13	O15264	5603	MAPK13
PIK3CA/PIK3R1	-0.484	9.742	-4.235	2.59E-05	0.000154	1.795	PIK3CA/PIK3R1	P42336 P27986	5290 5295	PIK3CA PIK3R1
NKp44	-0.364	9.074	-4.229	2.66E-05	0.000157	1.769	Natural cytotoxicity triggering receptor 2	O95944	9436	NCR2
CREL1	0.772	11.570	4.224	2.71E-05	0.00016	1.751	Cysteine-rich with EGF-like domain protein 1	Q96HD1	78987	CRELD1
PKC-A	-0.891	11.798	-4.219	2.77E-05	0.000163	1.730	Protein kinase C alpha type	P17252	5578	PRKCA
PLPP	-1.033	10.916	-4.214	2.84E-05	0.000166	1.707	Pyridoxal phosphate phosphatase	Q96GD0	57026	PDXP
EPHAA	-0.475	9.176	-4.212	2.87E-05	0.000167	1.699	Ephrin type-A receptor 10	Q5JZY3	284656	EPHA10

Table S16

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BMP-1	0.741	11.304	4.207	2.92E-05	0.000169	1.681	Bone morphogenetic protein 1	P13497	649	BMP1
FGF-8A	-0.799	8.554	-4.182	3.26E-05	0.000188	1.576	Fibroblast growth factor 8 isoform A	P55075	2253	FGF8
IMDH2	-0.356	13.152	-4.177	3.32E-05	0.000191	1.559	Inosine-5'-monophosphate dehydrogenase 2	P12268	3615	IMPDH2
Thyroglobulin	-0.433	8.777	-4.144	3.82E-05	0.000218	1.427	Thyroglobulin	P01266	7038	TG
Lamin-B1	-0.362	9.867	-4.142	3.86E-05	0.00022	1.417	Lamin-B1	P20700	4001	LMNB1
AMNLS	-0.604	8.019	-4.131	4.04E-05	0.000229	1.375	Protein amnionless	Q9BXJ7	81693	AMN
EF-1-beta	-0.625	9.714	-4.129	4.08E-05	0.00023	1.364	Elongation factor 1-beta	P24534	1933	EEF1B2
EP15R	-0.845	10.149	-4.124	4.17E-05	0.000234	1.345	Epidermal growth factor receptor substrate 15-like 1	Q9UBC2	58513	EPS15L1
CLC4K	-0.418	8.351	-4.122	4.2E-05	0.000235	1.337	C-type lectin domain family 4 member K	Q9UJ71	50489	CD207
AURKB	-0.397	10.246	-4.115	4.33E-05	0.000241	1.309	Aurora kinase B	Q96GD4	9212	AURKB
PSA1	-0.455	10.100	-4.114	4.35E-05	0.000241	1.305	Proteasome subunit alpha type-1	P25786	5682	PSMA1
DPP2	-0.506	12.367	-4.098	4.65E-05	0.000257	1.242	Dipeptidyl peptidase 2	Q9UHL4	29952	DPP7
Sonic Hedgehog	-0.520	9.790	-4.087	4.87E-05	0.000267	1.199	Sonic hedgehog protein	Q15465	6469	SHH
RGM-C	0.499	10.654	4.082	4.99E-05	0.000273	1.176	Hemojuvelin	Q6ZVN8	148738	HFE2
HNRPQ	-0.416	11.269	-4.065	5.34E-05	0.000291	1.111	Heterogeneous nuclear ribonucleoprotein Q	O60506	10492	SYNCRIP
CLC1B	-0.770	10.318	-4.057	5.53E-05	0.0003	1.079	C-type lectin domain family 1 member B	Q9P126	51266	CLEC1B
UB2L3	-0.684	10.400	-4.044	5.84E-05	0.000316	1.027	Ubiquitin-conjugating enzyme E2 L3	P68036	7332	UBE2L3
H2B2E	-1.190	16.219	-4.040	5.93E-05	0.000319	1.012	Histone H2B type 2-E	Q16778	8349	HIST2H2B E



Table S16

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MAPK14	-0.438	9.914	-4.029	6.21E-05	0.000333	0.970	Mitogen-activated protein kinase 14	Q16539	1432	MAPK14
Moesin	-0.685	10.683	-4.021	6.42E-05	0.000342	0.939	Moesin	P26038	4478	MSN
CPNE1	-0.836	9.871	-4.019	6.47E-05	0.000344	0.931	Copine-1	Q99829	8904	CPNE1
NCC27	-0.545	11.549	-4.017	6.54E-05	0.000346	0.921	Chloride intracellular channel protein 1	O00299	1192	CLIC1
GAPDH, liver	-1.190	14.550	-4.010	6.71E-05	0.000354	0.897	Glyceraldehyde-3-phosphate dehydrogenase	P04406	2597	GAPDH
ACE2	-0.456	9.623	-3.998	7.06E-05	0.000371	0.849	Angiotensin-converting enzyme 2	Q9BYF1	59272	ACE2
b-Endorphin	-0.469	10.096	-3.994	7.17E-05	0.000375	0.834	Beta-endorphin	P01189	5443	POMC
S100A6	-0.962	11.119	-3.977	7.71E-05	0.000402	0.766	Protein S100-A6	P06703	6277	S100A6
XPNPEP1	-0.768	12.221	-3.971	7.89E-05	0.000409	0.744	Xaa-Pro aminopeptidase 1	Q9NQW7	7511	XPNPEP1
IL-17B	-0.514	8.075	-3.964	8.12E-05	0.00042	0.717	Interleukin-17B	Q9UHF5	27190	IL17B
UCRP	-0.989	11.379	-3.963	8.16E-05	0.00042	0.713	Ubiquitin-like protein ISG15	P05161	9636	ISG15
K-ras	-0.472	10.049	-3.941	8.93E-05	0.000458	0.628	GTPase KRas	P01116	3845	KRAS
DLRB1	-0.798	10.659	-3.923	9.62E-05	0.000491	0.558	Dynein light chain roadblock-type 1	Q9NP97	83658	DYNLRB1
Peroxiredoxin-5	-0.335	9.988	-3.908	0.000102	0.000519	0.503	Peroxiredoxin-5, mitochondrial	P30044	25824	PRDX5
TIMP-3	1.326	12.396	3.906	0.000103	0.000522	0.493	Metalloproteinase inhibitor 3	P35625	7078	TIMP3
C2	0.407	11.470	3.902	0.000105	0.000526	0.480	Complement C2	P06681	717	C2
WISP-1	-0.510	15.167	-3.902	0.000105	0.000526	0.480	WNT1-inducible-signaling pathway protein 1	O95388	8840	WISP1
IL-7 Ra	-0.743	9.417	-3.900	0.000106	0.000529	0.471	Interleukin-7 receptor subunit alpha	P16871	3575	IL7R
TFPI	0.558	15.653	3.889	0.00011	0.00055	0.431	Tissue factor pathway inhibitor	P10646	7035	TFPI

Table S16

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Coagulation Factor X	0.428	12.705	3.849	0.000129	0.000642	0.282	Coagulation Factor X	P00742	2159	F10
dopa decarboxylase	-0.366	8.461	-3.840	0.000134	0.000665	0.245	Aromatic-L-amino-acid decarboxylase	P20711	1644	DDC
Protein S	0.443	12.271	3.836	0.000136	0.000673	0.230	Vitamin K-dependent protein S	P07225	5627	PROS1
SMAD2	-1.051	12.119	-3.833	0.000138	0.000677	0.221	Mothers against decapentaplegic homolog 2	Q15796	4087	SMAD2
LYN	-1.104	11.893	-3.832	0.000138	0.000677	0.218	Tyrosine-protein kinase Lyn	P07948	4067	LYN
BCL6	-0.333	11.148	-3.828	0.000141	0.000683	0.203	B-cell lymphoma 6 protein	P41182	604	BCL6
MMP-9	-0.820	9.286	-3.828	0.000141	0.000683	0.202	Matrix metalloproteinase-9	P14780	4318	MMP9
bFGF	-1.511	11.608	-3.827	0.000141	0.000683	0.199	Fibroblast growth factor 2	P09038	2247	FGF2
PECAM-1	-0.282	11.025	-3.823	0.000144	0.000693	0.182	Platelet endothelial cell adhesion molecule	P16284	5175	PECAM1
AREG	-1.013	10.467	-3.813	0.000149	0.000717	0.147	Amphiregulin	P15514	374	AREG
AIP	-0.387	11.458	-3.801	0.000156	0.000748	0.102	AH receptor-interacting protein	O00170	9049	AIP
HSP 70	-0.616	12.592	-3.801	0.000157	0.000748	0.100	Heat shock 70 kDa protein 1A	P0DMV8	3303	HSPA1A
AFP	-0.446	10.442	-3.795	0.000161	0.000763	0.078	alpha-Fetoprotein	P02771	174	AFP
CKAP2	-0.553	13.807	-3.786	0.000166	0.000786	0.047	Cytoskeleton-associated protein 2	Q8WWK9	26586	CKAP2
GPC2	-0.520	8.852	-3.784	0.000168	0.000791	0.038	Glypican-2	Q8N158	221914	GPC2
Neurotrophin-3	-0.546	8.094	-3.773	0.000175	0.000818	0.000	Neurotrophin-3	P20783	4908	NTF3
STAT6	-0.511	9.507	-3.773	0.000175	0.000818	-0.001	Signal transducer and activator of transcription 6	P42226	6778	STAT6

Table S16

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ghrelin	-0.445	11.216	-3.772	0.000176	0.00082	-0.006	Appetite-regulating hormone	Q9UBU3	51738	GHRL
eIF-5A-1	-0.869	10.008	-3.768	0.000179	0.00083	-0.021	Eukaryotic translation initiation factor 5A-1	P63241	1984	EIF5A
TSLP	-0.458	9.306	-3.764	0.000181	0.000839	-0.034	Thymic stromal lymphopoietin	Q969D9	85480	TSLP
TWEAKR	-1.012	9.760	-3.763	0.000182	0.000839	-0.037	Tumor necrosis factor receptor superfamily member 12A	Q9NP84	51330	TNFRSF12A
RAC1	-1.040	12.343	-3.759	0.000185	0.000849	-0.052	Ras-related C3 botulinum toxin substrate 1	P63000	5879	RAC1
ASM3A	-0.443	15.116	-3.758	0.000186	0.000851	-0.058	Acid sphingomyelinase-like phosphodiesterase 3a	Q92484	10924	SMPDL3A
p53	-0.447	12.394	-3.755	0.000187	0.000856	-0.066	Cellular tumor antigen p53	P04637	7157	TP53
KI2L4	-0.689	10.384	-3.748	0.000193	0.000878	-0.093	Killer cell immunoglobulin-like receptor 2DL4	Q99706	3805	KIR2DL4
MDM2	-0.404	8.481	-3.745	0.000195	0.000885	-0.104	E3 ubiquitin-protein ligase Mdm2	Q00987	4193	MDM2
PAK6	-0.474	9.411	-3.734	0.000204	0.000921	-0.144	Serine/threonine-protein kinase PAK 6	Q9NQU5	56924	PAK6
Prothrombin	0.665	16.642	3.720	0.000215	0.00097	-0.196	Prothrombin	P00734	2147	F2
IL-2 sRg	-0.704	10.902	-3.718	0.000217	0.000974	-0.203	Cytokine receptor common subunit gamma	P31785	3561	IL2RG
ALK-1	-0.376	11.236	-3.706	0.000227	0.001017	-0.247	Serine/threonine-protein kinase receptor R3	P37023	94	ACVRL1
DC-SIGNR	-0.343	13.240	-3.698	0.000234	0.001043	-0.273	C-type lectin domain family 4 member M	Q9H2X3	10332	CLEC4M

Table S16

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C1QBP	-0.254	13.459	-3.689	0.000242	0.001076	-0.306	Complement component 1 Q subcomponent-binding protein, mitochondrial	Q07021	708	C1QBP
Layilin	-0.281	11.139	-3.686	0.000246	0.001087	-0.319	Layilin	Q6UX15	143903	LAYN
Kallikrein 11	-0.495	11.305	-3.642	0.00029	0.001281	-0.475	Kallikrein-11	Q9UBX7	11012	KLK11
PGP9.5	-0.492	10.872	-3.630	0.000304	0.001335	-0.516	Ubiquitin carboxyl-terminal hydrolase isozyme L1	P09936	7345	UCHL1
IF4A3	-0.534	9.586	-3.617	0.000319	0.001398	-0.562	Eukaryotic initiation factor 4A-III	P38919	9775	EIF4A3
GV	-0.344	9.067	-3.607	0.000332	0.001451	-0.600	Calcium-dependent phospholipase A2	P39877	5322	PLA2G5
PLCG1	-0.645	9.529	-3.603	0.000337	0.001469	-0.614	1-phosphatidylinositol 4,5-bisphosphate phosphodiesterase gamma-1	P19174	5335	PLCG1
ULBP-2	-0.730	9.229	-3.600	0.00034	0.001475	-0.621	NKG2D ligand 2	Q9BZM5	80328	ULBP2
CD30 Ligand	-0.361	11.577	-3.592	0.000351	0.001514	-0.651	Tumor necrosis factor ligand superfamily member 8	P32971	944	TNFSF8
b-ECGF	-0.316	7.958	-3.592	0.000351	0.001514	-0.652	Fibroblast growth factor 1	P05230	2246	FGF1
BMX	-0.314	9.091	-3.589	0.000355	0.001526	-0.662	Cytoplasmic tyrosine-protein kinase BMX	P51813	660	BMX
PFD5	-0.481	9.347	-3.579	0.000369	0.001578	-0.697	Prefoldin subunit 5	Q99471	5204	PFDN5
NKG2D	-0.454	10.832	-3.578	0.00037	0.001581	-0.701	NKG2-D type II integral membrane protein	P26718	22914	KLRK1
FGF-5	-0.591	10.446	-3.574	0.000375	0.001596	-0.713	Fibroblast growth factor 5	P12034	2250	FGF5

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TYK2	0.642	12.372	3.568	0.000384	0.001628	-0.735	Non-receptor tyrosine-protein kinase TYK2	P29597	7297	TYK2
IL-1Rrp2	-0.375	10.235	-3.564	0.00039	0.001648	-0.749	Interleukin-1 receptor-like 2	Q9HB29	8808	IL1RL2
Chk2	-1.398	9.112	-3.562	0.000393	0.001655	-0.756	Serine/threonine-protein kinase Chk2	O96017	11200	CHEK2
Somatostatin-28	-0.320	10.372	-3.560	0.000396	0.001664	-0.764	Somatostatin-28	P61278	6750	SST
WNK3	-0.859	9.330	-3.544	0.000421	0.001759	-0.819	Serine/threonine-protein kinase WNK3	Q9BYP7	65267	WNK3
HMG-1	-0.346	11.660	-3.540	0.000426	0.001771	-0.831	High mobility group protein B1	P09429	3146	HMGB1
CD22	-0.255	10.583	-3.540	0.000426	0.001771	-0.831	B-cell receptor CD22	P20273	933	CD22
CSK21	-0.463	9.234	-3.531	0.000441	0.001826	-0.862	Casein kinase II subunit alpha	P68400	1457	CSNK2A1
AMPM2	-0.810	13.322	-3.530	0.000442	0.001826	-0.865	Methionine aminopeptidase 2	P50579	10988	METAP2
IFNA7	-0.610	9.321	-3.529	0.000444	0.001826	-0.868	Interferon alpha-7	P01567		IFNA7
IL-4	-0.456	9.735	-3.526	0.00045	0.001846	-0.881	Interleukin-4	P05112	3565	IL4
SPHK2	-0.317	10.126	-3.519	0.000462	0.001889	-0.906	Sphingosine kinase 2	Q9NRA0	56848	SPHK2
Survivin	-0.250	10.308	-3.499	0.000496	0.002023	-0.972	Baculoviral IAP repeat-containing protein 5	O15392	332	BIRC5
Granzyme B	-0.627	8.496	-3.492	0.00051	0.002069	-0.998	Granzyme B	P10144	3002	GZMB
HB-EGF	-0.527	8.390	-3.491	0.00051	0.002069	-0.998	Heparin-binding EGF-like growth factor	Q99075	1839	HBEGF
kallikrein 13	-0.277	10.509	-3.487	0.000519	0.002098	-1.014	Kallikrein-13	Q9UKR3	26085	KLK13
C3d	0.526	13.948	3.481	0.00053	0.002133	-1.033	Complement C3d fragment	P01024	718	C3
LRP8	-0.378	11.749	-3.480	0.000532	0.002137	-1.037	Low-density lipoprotein receptor-related protein 8	Q14114	7804	LRP8
Activin RIB	-0.402	9.077	-3.478	0.000537	0.00215	-1.046	Activin receptor type-1B	P36896	91	ACVR1B
Cystatin-S	-0.542	8.532	-3.452	0.000589	0.00235	-1.132	Cystatin-S	P01036	1472	CST4

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PGCB	-0.460	10.512	-3.451	0.000591	0.00235	-1.134	Brevican core protein	Q96GW7	63827	BCAN
NovH	-0.326	10.696	-3.451	0.000592	0.00235	-1.136	Protein NOV homolog	P48745	4856	NOV
Factor H	0.315	16.093	3.441	0.000615	0.002432	-1.171	Complement factor H	P08603	3075	CFH
ITI heavy chain H4	0.948	14.807	3.437	0.000623	0.002456	-1.183	Inter-alpha-trypsin inhibitor heavy chain H4	Q14624	3700	ITIH4
CK-MB	1.252	9.310	3.423	0.000655	0.002575	-1.230	Creatine kinase M-type:Creatine kinase B-type heterodimer	P12277 P06732	1152 1158	CKB CKM
CD40 ligand, soluble	-0.615	9.319	-3.420	0.000661	0.002592	-1.238	CD40 ligand	P29965	959	CD40LG
RAN	-1.289	10.158	-3.419	0.000666	0.002598	-1.244	GTP-binding nuclear protein Ran	P62826	5901	RAN
FLRT1	-0.412	10.017	-3.418	0.000667	0.002598	-1.246	Leucine-rich repeat transmembrane protein FLRT1	Q9NZU1	23769	FLRT1
JAK2	0.764	17.310	3.414	0.000678	0.002633	-1.261	Tyrosine-protein kinase JAK2	O60674	3717	JAK2
suPAR	-0.344	9.756	-3.407	0.000694	0.002687	-1.283	Urokinase plasminogen activator surface receptor	Q03405	5329	PLAUR
MFRP	-0.418	10.059	-3.394	0.000729	0.002808	-1.328	Membrane frizzled-related protein	Q9BY79	83552	MFRP
Lymphotoxin a2/b1	-0.339	11.545	-3.393	0.00073	0.002808	-1.329	Lymphotoxin alpha2:beta1	P01374, Q06643	4049 4050	LTA LTB
GIIE	-0.356	9.273	-3.377	0.000774	0.002972	-1.384	Group IIE secretory phospholipase A2	Q9NZK7	30814	PLA2G2E
NXPH1	0.427	11.628	3.369	0.000795	0.003042	-1.408	Neurexophilin-1	P58417	30010	NXPH1
IGFBP-4	0.456	11.566	3.367	0.0008	0.003052	-1.414	Insulin-like growth factor-binding protein 4	P22692	3487	IGFBP4
IL-3 Ra	-0.566	9.909	-3.364	0.000809	0.003077	-1.424	Interleukin-3 receptor subunit alpha	P26951	3563	IL3RA
ULBP-3	-0.444	9.626	-3.358	0.000827	0.003137	-1.445	NKG2D ligand 3	Q9BZM4	79465	ULBP3

Table S16

vars	logFC	AveExpr	t	P.Value	adj.P.Val	B	TargetFullName	UniProt	GeneID	Symbol
IL-10	-0.501	8.693	-3.348	0.000858	0.003245	-1.479	Interleukin-10	P22301	3586	IL10
RANTES	0.969	15.561	3.343	0.000872	0.003287	-1.493	C-C motif chemokine 5	P13501	6352	CCL5
PCI	2.257	15.112	3.324	0.000934	0.003512	-1.557	Plasma serine protease inhibitor	P05154	5104	SERPINA5
Angiopoietin-2	0.473	6.915	3.319	0.000951	0.003566	-1.573	Angiopoietin-2	O15123	285	ANGPT2
MATK	-0.399	9.818	-3.314	0.000969	0.003608	-1.590	Megakaryocyte-associated tyrosine-protein kinase	P42679	4145	MATK
Galectin-4	-0.319	9.853	-3.313	0.000969	0.003608	-1.591	Galectin-4	P56470	3960	LGALS4
Thrombopoietin Receptor	-0.356	8.634	-3.313	0.000971	0.003608	-1.592	Thrombopoietin Receptor	P40238	4352	MPL
NCK1	-0.574	10.695	-3.307	0.000992	0.00367	-1.612	Cytoplasmic protein NCK1	P16333	4690	NCK1
KPCT	-0.440	11.387	-3.306	0.000993	0.00367	-1.613	Protein kinase C theta type	Q04759	5588	PRKCQ
TSLP R	-0.312	11.047	-3.299	0.001019	0.003756	-1.637	Cytokine receptor-like factor 2	Q9HC73	64109	CRLF2
Cyclophilin F	-1.209	11.766	-3.295	0.001034	0.003798	-1.650	Peptidyl-prolyl cis-trans isomerase F, mitochondrial	P30405	10105	PPIF
GPC6	-0.314	12.806	-3.293	0.001043	0.00382	-1.658	Glypican-6	Q9Y625	10082	GPC6
EPHA3	-0.545	7.834	-3.290	0.001052	0.003842	-1.666	Ephrin type-A receptor 3	P29320	2042	EPHA3
IL-18 Rb	-0.410	8.898	-3.288	0.001058	0.003854	-1.671	Interleukin-18 receptor accessory protein	O95256	8807	IL18RAP
OX40 Ligand	-0.469	9.352	-3.281	0.001086	0.003941	-1.695	Tumor necrosis factor ligand superfamily member 4	P23510	7292	TNFSF4
C5a	0.729	14.239	3.280	0.001088	0.003941	-1.697	C5a anaphylatoxin	P01031	727	C5
IL-7	-0.370	8.602	-3.276	0.001105	0.003994	-1.712	Interleukin-7	P13232	3574	IL7

Table S16

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IgG	0.341	17.605	3.263	0.001158	0.004171	-1.754	Immunoglobulin G	P01857	3500 3501	IGHG1 IGHG2 IGHG3 IGHG4 IGK@ IGL@
WIF-1	-0.407	11.518	-3.249	0.001213	0.004358	-1.797	Wnt inhibitory factor 1	Q9Y5W5	11197	WIF1
BAD	-0.874	11.790	-3.246	0.001227	0.004395	-1.807	Bcl2-associated agonist of cell death	Q92934	572	BAD
Catalase	-1.085	13.139	-3.245	0.001231	0.004398	-1.810	Catalase	P04040	847	CAT
Mesothelin	-0.702	9.371	-3.231	0.00129	0.004597	-1.854	Mesothelin	Q13421	10232	MSLN
IL-9	-0.462	9.212	-3.228	0.001304	0.004633	-1.863	Interleukin-9	P15248	3578	IL9
HSP 40	-0.612	8.615	-3.217	0.001354	0.004797	-1.897	DnaJ homolog subfamily B member 1	P25685	3337	DNAJB1
FST	-0.272	9.727	-3.196	0.001457	0.00515	-1.965	Follistatin	P19883	10468	FST
RANK	-0.312	10.565	-3.194	0.001468	0.005172	-1.972	Tumor necrosis factor receptor superfamily member 11A	Q9Y6Q6	8792	TNFRSF11 A
DHH	-0.586	9.266	-3.186	0.001505	0.005289	-1.994	Desert hedgehog protein N-product	O43323	50846	DHH
CLF-1/CLC Complex	-0.375	9.741	-3.175	0.001562	0.005475	-2.029	Cytokine receptor-like factor 1:Cardiotrophin- like cytokine factor 1 Complex	O75462 Q9UBD9	9244 23529	CRLF1 CLCF1
Carbonic anhydrase I	-1.491	13.750	-3.175	0.001566	0.005476	-2.031	Carbonic anhydrase 1	P00915	759	CA1
INGR2	-0.484	9.968	-3.172	0.001578	0.005502	-2.038	Interferon gamma receptor 2	P38484	3460	IFNGR2
ERP29	0.428	11.866	3.156	0.001668	0.0058	-2.089	Endoplasmic reticulum resident protein 29	P30040	10961	ERP29



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PSA6	-0.417	9.836	-3.147	0.001721	0.00597	-2.118	Proteasome subunit alpha type-6	P60900	5687	PSMA6
PIM1	-0.365	10.359	-3.141	0.001754	0.006066	-2.135	Serine/threonine-protein kinase pim-1	P11309	5292	PIM1
Kallikrein 4	-0.395	9.299	-3.130	0.001818	0.006272	-2.167	Kallikrein-4	Q9Y5K2	9622	KLK4
COMMD7	-0.415	11.703	-3.124	0.001859	0.006395	-2.188	COMM domain-containing protein 7	Q86VX2	149951	COMMD7
DERM	0.456	11.908	3.120	0.001884	0.006465	-2.200	Dermatopontin	Q07507	1805	DPT
Aflatoxin B1 aldehyde reductase	-1.009	12.455	-3.118	0.001897	0.006493	-2.206	Aflatoxin B1 aldehyde reductase member 2	O43488	8574	AKR7A2
TMA	-0.290	11.537	-3.111	0.001943	0.006631	-2.228	Thyroid peroxidase	P07202	7173	TPO
MMP-13	-0.661	10.185	-3.102	0.002	0.006809	-2.255	Collagenase 3	P45452	4322	MMP13
RSPO3	-0.449	11.215	-3.094	0.002051	0.006965	-2.278	R-spondin-3	Q9BXY4	84870	RSPO3
RAD51	-0.401	11.701	-3.093	0.00206	0.006976	-2.282	DNA repair protein RAD51 homolog 1	Q06609	5888	RAD51
p27Kip1	-0.911	10.518	-3.092	0.002065	0.006976	-2.284	Cyclin-dependent kinase inhibitor 1B	P46527	1027	CDKN1B
CD244	-0.494	8.867	-3.090	0.002083	0.007018	-2.292	Natural killer cell receptor 2B4	Q9BZW8	51744	CD244
Endothelin-converting enzyme 1	0.292	14.324	3.088	0.002096	0.007043	-2.297	Endothelin-converting enzyme 1	P42892	1889	ECE1
MSP R	-0.280	9.806	-3.085	0.002119	0.007101	-2.307	Macrophage-stimulating protein receptor	Q04912	4486	MST1R
Histone H1.2	-1.252	12.776	-3.070	0.002221	0.007426	-2.350	Histone H1.2	P16403	3006	HIST1H1C
MO2R1	-0.496	10.518	-3.067	0.002248	0.007496	-2.361	Cell surface glycoprotein CD200 receptor 1	Q8TD46	131450	CD200R1
EG-VEGF	-0.421	8.577	-3.060	0.002296	0.007636	-2.380	Prokineticin-1	P58294	84432	PROK1
ERBB2	-0.411	9.749	-3.037	0.002482	0.008232	-2.451	Receptor tyrosine-protein kinase erbB-2	P04626	2064	ERBB2
GX	-0.292	9.848	-3.017	0.002641	0.008739	-2.508	Group 10 secretory phospholipase A2	O15496	8399	PLA2G10

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Tpo	-0.492	9.130	-3.010	0.002702	0.008919	-2.528	Thrombopoietin	P40225	7066	THPO
HO-2	-0.437	9.999	-3.008	0.002725	0.008972	-2.536	Heme oxygenase 2	P30519	3163	HMOX2
PPIE	-0.725	9.378	-3.001	0.002784	0.00914	-2.555	Peptidyl-prolyl cis-trans isomerase E	Q9UNP9	10450	PPIE
ATS1	-0.363	9.234	-2.992	0.00287	0.009401	-2.583	A disintegrin and metalloproteinase with thrombospondin motifs 1	Q9UHI8	9510	ADAMTS1
MDHC	-0.698	13.721	-2.989	0.002897	0.009465	-2.592	Malate dehydrogenase, cytoplasmic	P40925	4190	MDH1
Sialoadhesin	-0.411	7.671	-2.986	0.002927	0.009537	-2.601	Sialoadhesin	Q9BZZ2	6614	SIGLEC1
LKHA4	1.287	11.372	2.978	0.003001	0.009755	-2.624	Leukotriene A-4 hydrolase	P09960	4048	LTA4H
Peroxiredoxin-6	-1.110	14.865	-2.972	0.003058	0.009915	-2.641	Peroxiredoxin-6	P30041	9588	PRDX6
ABL2	-0.288	11.960	-2.971	0.003074	0.009942	-2.645	Abelson tyrosine-protein kinase 2	P42684	27	ABL2
Keratin 18	-0.342	10.657	-2.967	0.003113	0.010042	-2.657	Keratin, type I cytoskeletal 18	P05783	3875	KRT18
BMPR1A	-0.414	9.912	-2.966	0.003122	0.010049	-2.659	Bone morphogenetic protein receptor type-1A	P36894	657	BMPR1A
FGF-4	-0.351	8.678	-2.960	0.003184	0.01022	-2.677	Fibroblast growth factor 4	P08620	2249	FGF4
MK01	-0.948	11.256	-2.949	0.003293	0.010547	-2.708	Mitogen-activated protein kinase 1	P28482	5594	MAPK1
GFAP	-0.439	9.886	-2.947	0.003311	0.010578	-2.713	Glial fibrillary acidic protein	P14136	2670	GFAP
DAN	-0.460	11.971	-2.935	0.00344	0.010963	-2.747	Neuroblastoma suppressor of tumorigenicity 1	P41271	4681	NBL1
ANGL3	-0.283	9.776	-2.930	0.003501	0.011131	-2.763	Angiopoietin-related protein 3	Q9Y5C1	27329	ANGPTL3

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Cytidylate kinase	-0.328	13.902	-2.925	0.003554	0.011272	-2.777	UMP-CMP kinase	P30085	51727	CMPK1
paraoxonase 1	-0.338	8.368	-2.921	0.003596	0.011374	-2.787	Serum paraoxonase/arylesterase 1	P27169	5444	PON1
SET	0.307	14.151	2.916	0.003655	0.011533	-2.802	Protein SET	Q01105	6418	SET
MK12	-0.403	9.545	-2.915	0.003672	0.011559	-2.806	Mitogen-activated protein kinase 12	P53778	6300	MAPK12
BGH3	0.423	14.985	2.913	0.003695	0.011603	-2.812	Transforming growth factor-beta-induced protein ig-h3	Q15582	7045	TGFB1
DnaJ homolog	-0.301	9.710	-2.912	0.003704	0.011603	-2.814	Mitochondrial import inner membrane translocase subunit TIM14	Q96DA6	131118	DNAJC19
Coagulation Factor Xa	0.346	12.345	2.909	0.003741	0.011692	-2.823	Coagulation factor Xa	P00742	2159	F10
STX1a	-0.293	9.942	-2.905	0.003783	0.011796	-2.833	Syntaxin-1A	Q16623	6804	STX1A
discoidin domain receptor 1	-0.426	8.630	-2.896	0.003901	0.012132	-2.861	Epithelial discoidin domain-containing receptor 1	Q08345	780	DDR1
DBNL	-0.462	10.887	-2.892	0.00394	0.012226	-2.870	Drebrin-like protein	Q9UJU6	28988	DBNL
EGF	-0.607	11.509	-2.890	0.003967	0.012261	-2.876	Epidermal growth factor	P01133	1950	EGF
ATS15	-0.253	9.028	-2.890	0.00397	0.012261	-2.877	A disintegrin and metalloproteinase with thrombospondin motifs 15	Q8TE58	170689	ADAMTS15
14-3-3 protein theta	-0.195	11.337	-2.884	0.004044	0.012448	-2.893	14-3-3 protein theta	P27348	10971	YWHAQ
Apo E4	0.493	17.690	2.884	0.00405	0.012448	-2.895	Apolipoprotein E (isoform E4)	P02649	348	APOE
FYN	-1.040	12.486	-2.864	0.004307	0.013206	-2.950	Tyrosine-protein kinase Fyn	P06241	2534	FYN
IL-34	-0.451	10.066	-2.857	0.004407	0.013482	-2.971	Interleukin-34	Q6ZMJ4	146433	IL34

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a1-Antichymotrypsin	0.217	17.978	2.849	0.004508	0.013756	-2.991	Alpha-1-antichymotrypsin	P01011	12	SERPINA3
Coactosin-like protein	-0.292	12.199	-2.849	0.004519	0.013758	-2.993	Coactosin-like protein	Q14019	23406	COTL1
IL-1F6	-0.949	12.940	-2.838	0.004669	0.014183	-3.023	Interleukin-36 alpha	Q9UHA7	27179	IL36A
SAP	0.360	15.222	2.836	0.004706	0.014261	-3.030	Serum amyloid P-component	P02743	325	APCS
TPSG1	-0.528	8.855	-2.832	0.004752	0.014367	-3.039	Tryptase gamma	Q9NRR2	25823	TPSG1
OCAD1	-0.257	10.728	-2.823	0.004885	0.014735	-3.064	OCIA domain-containing protein 1	Q9NX40	54940	OCIAD1
SMAC	-0.214	11.859	-2.822	0.004914	0.014744	-3.069	Diablo homolog, mitochondrial	Q9NR28	56616	DIABLO
EMR2	0.417	9.371	2.821	0.004919	0.014744	-3.070	Adhesion G protein-coupled receptor E2	Q9UHX3	30817	ADGRE2
CD70	-0.514	9.156	-2.821	0.004922	0.014744	-3.070	CD70 antigen	P32970	970	CD70
NLGNX	-0.405	10.187	-2.819	0.004951	0.014773	-3.076	Neuroigin-4, X-linked	Q8N0W4	57502	NLGN4X
TBK1	-0.286	8.811	-2.819	0.004955	0.014773	-3.076	Serine/threonine-protein kinase TBK1	Q9UHD2	29110	TBK1
GSTA3	-0.542	8.587	-2.816	0.004998	0.014867	-3.084	Glutathione S-transferase A3	Q16772	2940	GSTA3
Gro-a	-0.258	10.891	-2.814	0.005027	0.01492	-3.089	Growth-regulated alpha protein	P09341	2919	CXCL1
Topoisomerase I	-0.405	9.967	-2.813	0.005052	0.014929	-3.094	DNA topoisomerase 1	P11387	7150	TOP1
phosphoglycerate kinase 1	-0.218	12.466	-2.813	0.005053	0.014929	-3.094	Phosphoglycerate kinase 1	P00558	5230	PGK1
DC-SIGN	0.522	11.239	2.804	0.005193	0.015306	-3.118	CD209 antigen	Q9NNX6	30835	CD209
RSPO4	-0.374	8.959	-2.790	0.005414	0.015923	-3.156	R-spondin-4	Q210M5	343637	RSPO4
LRRT3	-0.306	8.845	-2.788	0.005453	0.016002	-3.162	Leucine-rich repeat transmembrane neuronal protein 3	Q86VH5	347731	LRRTM3
CD30	-0.241	11.119	-2.784	0.005517	0.016153	-3.173	Tumor necrosis factor receptor superfamily member 8	P28908	943	TNFRSF8

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Livin B	-0.303	7.536	-2.778	0.005614	0.016398	-3.188	Baculoviral IAP repeat-containing protein 7 Isoform beta	Q96CA5	79444	BIRC7
MIF	-0.383	10.378	-2.775	0.005662	0.016504	-3.196	Macrophage migration inhibitory factor	P14174	4282	MIF
PKC-B-II	-0.751	12.900	-2.770	0.005752	0.016726	-3.210	Protein kinase C beta type (splice variant beta-II)	P05771	5579	PRKCB
Sphingosine kinase 1	-0.665	10.121	-2.766	0.00582	0.016887	-3.221	Sphingosine kinase 1	Q9NYA1	8877	SPHK1
IL-17 RC	0.394	11.037	2.758	0.005971	0.017288	-3.244	Interleukin-17 receptor C	Q8NAC3	84818	IL17RC
ULBP-1	-0.474	10.101	-2.754	0.006047	0.017468	-3.255	NKG2D ligand 1	Q9BZM6	80329	ULBP1
Glutamate carboxypeptidase	-0.293	11.237	-2.750	0.006115	0.017598	-3.265	Cytosolic non-specific dipeptidase	Q96KP4	55748	CNDP2
Kallistatin	0.270	15.201	2.750	0.00612	0.017598	-3.266	Kallistatin	P29622	5267	SERPINA4
IL-17 RD	-0.323	9.743	-2.749	0.006133	0.017598	-3.268	Interleukin-17 receptor D	Q8NFM7	54756	IL17RD
Lymphotoxin b R	-0.302	13.130	-2.745	0.00621	0.01778	-3.279	Tumor necrosis factor receptor superfamily member 3	P36941	4055	LTBR
HCG	-1.272	10.870	-2.737	0.00635	0.01814	-3.299	Human Chorionic Gonadotropin	P01215,P01233	1081 1082	CGA CGB
CATF	-0.324	11.903	-2.732	0.006447	0.018379	-3.312	Cathepsin F	Q9UBX1	8722	CTSF
IL-10 Ra	-0.142	11.060	-2.729	0.006509	0.018514	-3.321	Interleukin-10 receptor subunit alpha	Q13651	3587	IL10RA
HMGR	-0.388	9.315	-2.727	0.006544	0.018573	-3.326	3-hydroxy-3-methylglutaryl-coenzyme A reductase	P04035	3156	HMGCR
vWF	0.848	14.199	2.721	0.006677	0.018908	-3.344	von Willebrand factor	P04275	7450	VWF
Cytochrome P450 3A4	-0.264	10.156	-2.712	0.006859	0.01938	-3.368	Cytochrome P450 3A4	P08684	1576	CYP3A4
HDAC8	-0.269	11.371	-2.701	0.007073	0.019942	-3.395	Histone deacetylase 8	Q9BY41	55869	HDAC8

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BLC	0.664	11.428	2.700	0.007106	0.019957	-3.399	C-X-C motif chemokine 13	O43927	10563	CXCL13
Persephin	-0.311	8.625	-2.700	0.007109	0.019957	-3.400	Persephin	O60542	5623	PSPN
PH	-0.472	11.513	-2.698	0.007141	0.020005	-3.404	Pancreatic hormone	P01298	5539	PPY
PSME3	-0.368	9.293	-2.695	0.007202	0.020132	-3.411	Proteasome activator complex subunit 3	P61289	10197	PSME3
GM-CSF	-0.652	8.586	-2.684	0.007435	0.020739	-3.440	Granulocyte-macrophage colony-stimulating factor	P04141	1437	CSF2
Neurotrophin-5	-0.373	8.395	-2.669	0.007781	0.021656	-3.480	Neurotrophin-4	P34130	4909	NTF4
TGF-b2	-0.463	9.040	-2.667	0.007835	0.02176	-3.486	Transforming growth factor beta-2	P61812	7042	TGFB2
SLAF7	0.765	15.378	2.660	0.007993	0.02215	-3.504	SLAM family member 7	Q9NQ25	57823	SLAMF7
IL-22	-0.392	8.113	-2.659	0.008015	0.022164	-3.506	Interleukin-22	Q9GZX6	50616	IL22
RS3A	-0.555	9.866	-2.655	0.008099	0.022351	-3.516	40S ribosomal protein S3a	P61247	6189	RPS3A
Mcl-1	-0.579	10.195	-2.646	0.008337	0.022959	-3.542	Induced myeloid leukemia cell differentiation protein Mcl-1	Q07820	4170	MCL1
FGF-16	-0.562	10.528	-2.640	0.008474	0.023285	-3.556	Fibroblast growth factor 16	O43320	8823	FGF16
NACA	-0.766	12.761	-2.637	0.008549	0.023443	-3.564	Nascent polypeptide-associated complex subunit alpha	Q13765	4666	NACA
BMP-14	-0.711	12.129	-2.635	0.008594	0.023515	-3.568	Growth/differentiation factor 5	P43026	8200	GDF5
ERAB	-0.388	10.002	-2.630	0.008726	0.023827	-3.582	3-hydroxyacyl-CoA dehydrogenase type-2	Q99714	3028	HSD17B10
ZNRF3	-0.507	9.771	-2.627	0.008801	0.023981	-3.590	E3 ubiquitin-protein ligase ZNRF3	Q9ULT6	84133	ZNRF3
Peroxiredoxin-1	-0.560	10.738	-2.621	0.00896	0.024363	-3.606	Peroxiredoxin-1	Q06830	5052	PRDX1

Table S16

vars	logFC	AveExpr	t	P.Value	adj.P.Val	B	TargetFullName	UniProt	GeneID	Symbol
GNS	-0.403	12.122	-2.619	0.009	0.02442	-3.609	N-acetylglucosamine-6-sulfatase	P15586	2799	GNS
TWEAK	-0.351	11.109	-2.617	0.009062	0.024538	-3.616	Tumor necrosis factor ligand superfamily member 12	O43508	8742	TNFSF12
Notch-3	0.342	9.191	2.615	0.009104	0.02459	-3.620	Neurogenic locus notch homolog protein 3	Q9UM47	4854	NOTCH3
IDE	-0.479	11.498	-2.615	0.009122	0.02459	-3.621	Insulin-degrading enzyme	P14735	3416	IDE
FCN1	-0.402	9.605	-2.614	0.009138	0.02459	-3.623	Ficolin-1	O00602	2219	FCN1
HSP 60	-0.257	10.436	-2.610	0.009235	0.024789	-3.632	60 kDa heat shock protein, mitochondrial	P10809	3329	HSPD1
SSRP1	-0.381	9.693	-2.610	0.00925	0.024789	-3.634	FACT complex subunit SSRP1	Q08945	6749	SSRP1
a2-Macroglobulin	0.563	15.404	2.590	0.009791	0.026184	-3.684	Alpha-2-macroglobulin	P01023	2	A2M
CSH	-0.327	13.399	-2.587	0.009872	0.026345	-3.691	Chorionic somatomammotropin hormone	PODML2 PODML3	1442 1443	CSH1 CSH2
Thrombin	0.470	15.840	2.578	0.010133	0.026986	-3.715	Thrombin	P00734	2147	F2
PACAP-38	-0.355	8.781	-2.567	0.010473	0.027835	-3.744	Pituitary adenylate cyclase-activating polypeptide 38	P18509	116	ADCYAP1
IL-6	-0.386	9.351	-2.559	0.010698	0.028375	-3.763	Interleukin-6	P05231	3569	IL6
IL-20 Ra	-0.363	9.139	-2.556	0.010787	0.028541	-3.770	Interleukin-20 receptor subunit alpha	Q9UHF4	53832	IL20RA
CTLA-4	-0.637	7.232	-2.556	0.010805	0.028541	-3.771	Cytotoxic T-lymphocyte protein 4	P16410	1493	CTLA4
sFRP-3	0.294	11.687	2.549	0.011014	0.029034	-3.788	Secreted frizzled-related protein 3	Q92765	2487	FRZB

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vars	logFC	AveExpr	t	P.Value	adj.P.Val	B	TargetFullName	UniProt	GeneID	Symbol
RSPO2	-0.300	9.241	-2.545	0.011131	0.029283	-3.798	R-spondin-2	Q6UXX9	340419	RSPO2
MP2K4	0.538	15.497	2.540	0.011306	0.029683	-3.811	Dual specificity mitogen-activated protein kinase kinase 4	P45985	6416	MAP2K4
Galectin-3	0.295	14.246	2.538	0.01135	0.029739	-3.815	Galectin-3	P17931	3958	LGALS3
PTH	0.719	11.525	2.536	0.011421	0.029866	-3.820	Parathyroid hormone	P01270	5741	PTH
Angiostatin	0.315	14.220	2.532	0.011543	0.030123	-3.830	Angiostatin	P00747	5340	PLG
calgranulin B	0.670	11.118	2.523	0.011845	0.030849	-3.852	Protein S100-A9	P06702	6280	S100A9
Flt3 ligand	-0.380	10.150	-2.521	0.011925	0.030995	-3.858	Fms-related tyrosine kinase 3 ligand	P49771	2323	FLT3LG
ADAMTS-4	-0.351	8.072	-2.517	0.012058	0.031278	-3.868	A disintegrin and metalloproteinase with thrombospondin motifs 4	O75173	9507	ADAMTS4
Elafin	0.582	13.502	2.513	0.01221	0.031574	-3.879	Elafin	P19957	5266	PI3
PLK-1	-0.310	8.773	-2.511	0.012247	0.031574	-3.882	Serine/threonine-protein kinase PLK1	P53350	5347	PLK1
Lectin, mannose-binding 2	-0.462	16.394	-2.511	0.012251	0.031574	-3.882	Vesicular integral-membrane protein VIP36	Q12907	10960	LMAN2
Testican-2	0.283	9.913	2.511	0.012269	0.031574	-3.883	Testican-2	Q92563	9806	SPOCK2
MMP-3	0.494	10.365	2.487	0.013106	0.033659	-3.941	Stromelysin-1	P08254	4314	MMP3
Glypican 3	-0.400	10.104	-2.484	0.013241	0.033939	-3.950	Glypican-3	P51654	2719	GPC3
Marapsin	-0.241	14.617	-2.474	0.013588	0.03476	-3.973	Serine protease 27	Q9BQR3	83886	PRSS27
prostatic binding protein	-0.703	11.005	-2.464	0.013964	0.035649	-3.997	Phosphatidylethanolamine-binding protein 1	P30086	5037	PEBP1
NRX1B	-0.414	10.138	-2.464	0.01399	0.035649	-3.999	Neurexin-1-beta	P58400	9378	NRXN1
CK-MM	0.420	10.375	2.455	0.014317	0.03641	-4.019	Creatine kinase M-type	P06732	1158	CKM
Mammaglobin 2	-0.185	15.035	-2.450	0.014527	0.036872	-4.032	Mammaglobin-B	O75556	4246	SCGB2A1
MAPK2	-0.356	11.230	-2.435	0.015146	0.038369	-4.068	MAP kinase-activated protein kinase 2	P49137	9261	MAPKAPK2



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Soggy-1	-0.262	14.942	-2.433	0.015237	0.038523	-4.074	Dickkopf-like protein 1	Q9UK85	27120	DKKL1
PTHrP	-0.315	9.974	-2.430	0.015333	0.038689	-4.079	Parathyroid hormone-related protein	P12272	5744	PTHLH
GCKR	-0.334	10.204	-2.424	0.015601	0.03929	-4.094	Glucokinase regulatory protein	Q14397	2646	GCKR
MCP-4	-0.445	9.912	-2.417	0.01591	0.039992	-4.111	C-C motif chemokine 13	Q99616	6357	CCL13
RGMA	0.334	14.041	2.410	0.016188	0.04061	-4.127	Repulsive guidance molecule A	Q96B86	56963	RGMA
PBEF	-0.587	10.591	-2.408	0.016291	0.040789	-4.132	Nicotinamide phosphoribosyltransferase	P43490	10135	NAMPT
EphA5	-0.366	10.626	-2.403	0.016506	0.041249	-4.144	Ephrin type-A receptor 5	P54756	2044	EPHA5
BMPER	-0.395	9.992	-2.402	0.016554	0.04129	-4.146	BMP-binding endothelial regulator protein	Q8N8U9	168667	BMPER
ARSB	-0.316	11.255	-2.393	0.016977	0.042263	-4.168	Arylsulfatase B	P15848	411	ARSB
AMPK a1b1g1	-0.338	9.558	-2.389	0.017141	0.042541	-4.177	AMP Kinase (alpha1beta1gamma1)	Q13131 Q9Y478 P54619	5562 5564	PRKAA1 PRKAB1 PRKAG1
IFN-lambda 2	-0.261	8.607	-2.389	0.017154	0.042541	-4.177	Interferon lambda-2	Q8IZJ0	282616	IFNL2
IL-17F	-0.475	9.691	-2.385	0.01734	0.042921	-4.187	Interleukin-17F	Q96PD4	112744	IL17F
CAD15	-0.440	13.128	-2.384	0.017404	0.042995	-4.190	Cadherin-15	P55291	1013	CDH15
LPPL	-0.315	10.567	-2.382	0.017498	0.043146	-4.194	Galectin-10	Q05315	1178	CLC
AGR2	-0.230	11.155	-2.371	0.018017	0.044342	-4.220	Anterior gradient protein 2 homolog	O95994	10551	AGR2
ROBO3	-0.336	9.482	-2.367	0.018206	0.044721	-4.229	Roundabout homolog 3	Q96MS0	64221	ROBO3
Artemin	-0.359	9.795	-2.362	0.018431	0.045188	-4.240	Artemin	Q5T4W7	9048	ARTN
MBL	0.785	13.837	2.359	0.018606	0.045449	-4.248	Mannose-binding protein C	P11226	4153	MBL2

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<b>vars</b>	<b>logFC</b>	<b>AveExpr</b>	<b>t</b>	<b>P.Value</b>	<b>adj.P.Val</b>	<b>B</b>	<b>TargetFullName</b>	<b>UniProt</b>	<b>GeneID</b>	<b>Symbol</b>
Nogo Receptor	0.341	10.770	2.359	0.018607	0.045449	-4.248	Reticulon-4 receptor	Q9BZR6	65078	RTN4R
DRAK2	-0.268	13.109	-2.342	0.019439	0.047392	-4.286	Serine/threonine-protein kinase 17B	O94768	9262	STK17B
FGF-6	-0.383	8.936	-2.338	0.01969	0.047913	-4.297	Fibroblast growth factor 6	P10767	2251	FGF6
IL-1F8	-0.328	9.889	-2.336	0.019782	0.048047	-4.301	Interleukin-36 beta	Q9NZH7	27177	IL36B
gp130, soluble	0.278	12.912	2.327	0.020229	0.049042	-4.321	Interleukin-6 receptor subunit beta	P40189	3572	IL6ST