Table S5. List of non-redundant protein groups detected by MudPIT analysis of Nuclear Envelopes (NEs) isolated from Human Peripheral Blood Mononuclear Cells (PBMCs) and compared to Microsomal Membranes (MMs) isolated from Rodent Liver

Human, mouse and rat proteins are compared based on their Ensembl orthologous group.
The number of times a protein is detected across replicates is listed in the "Detected # Out of" columns.
dNSAF are averaged across replicate runs ("dNSAF AVG" columns).
(Note that dNSAF values from 2 proteinase K digested samples with low spectral counts and protein identifications (HsSD-NE_NT_lymphocytes_PK_1 and HsNaOH-NE_PHA_lymphocytes_PK_1) were not included in the average and standard deviation calculations)

Ratios between dNSAF measured in NEs samples and dNSAF measured in MMs samples are reported in the "NEs:MMs" column.

Columns ending with PredHel and TMHMM_Topology list the number and position of transmembrane helices predicted for each protein by TMHMM.

The columns starting with "SIGNALP" are the output from SIGNALP HMM predictions on each protein for type of signal peptide sequences, their position (_POS) and probability (_SPROB).

Proteins that also appeared in separate mitochondrial datasets (Mootha et al, 2003) are listed in the "Detected in Mitochondria" column.

Nine protein classes are defined (within each class, proteins are ranked by decreasing dNSAF values and frequency of detection)

	Total	NT	unique NT	NT AND PHA	PHA	unique PHA	
rk 1-13	13	13	0	13	13	0	Proteins previously annotated as NETs
rk 14-52	39	33	5	28	34	4	Proteins previously annotated as liver NETs (Schirmer et al, 2003)
rk 53-139	87	75	12	63	75	12	Putative blood NETs (at least 1 predicted TM or membrane anchor, not detected in mitochondria and MMs, or with NEs:MMs ratio >5; plausible annotation)
rk 140-475	336	299	66	233	270	37	Membrane proteins enriched in NEs (at least 1 predicted TM or membrane anchor, not detected in mitochondria and MMs, or with NEs:MMs ratio >5; annotation not compatible with them being NETs)
rk 476-2593	2118	1808	322	1486	1796	310	Soluble proteins enriched in NEs (not detected in mitochondria and MMs, or with NEs:MMs ratio >5)
rk 2594-2885	292	265	41	224	251	27	Membrane proteins not enriched in NEs (at least 1 predicted TM or membrane anchor, not detected in mitochondria, and with NEs:MMs ratio <5)
rk 2886-3174	289	263	40	223	249	26	Soluble proteins not enriched in NEs (not detected in mitochondria, and with NEs:MMs ratio <5)
rk 3175-3214	40	37	6	31	34	3	Membrane proteins detected in previously published mitochondrial proteome dataset (Mootha et al, 2003) (at least 1 predicted TM or membrane anchor, detected in mitochondria)
rk 3215-3351	137	130	15	115	117	2	Soluble proteins detected in previously published mitochondrial proteome dataset (Mootha et al, 2003) (detected in mitochondria)

																				RESTING LYMPHOCYTES NEs								PHA-TREATED LYMPHOCYTES NEs								MMs										
rk	NEs detected # out of 10 runs	NEs dNSAF_A VG	MMs detected # out of 8 runs	MMs dNSAF_A VG	NEs:MMs	Detected in Mitochondria	ORTHO_GROUP	GENE_NAME	NET_NAME	Location & Gene Expression Data	Locus	Description	Length	MW	pI	PredHel	TMHMM_Topology	SIGNALP_HMM_TYPE (S= signal; A= Anchor; Q= none)	SIGNALP_HMM_POS	SIGNALP_HMM_SPROB	HsNaOH-NE_NT_lymphocytes_CNBr AF	HsNaOH-NE_NT_lymphocytes_CNBr dNSAF	HsNaOH-NE_NT_lymphocytes_Tl_1 AF	HsNaOH-NE_NT_lymphocytes_Tl_1 dNSAF	HsSD-NE_NT_lymphocytes_Tl_1 AF	HsSD-NE_NT_lymphocytes_Tl_1 dNSAF	NT-NEs Detected	NT-NEs dNSAF AVG	NT-NEs dNSAF SDV	HsNaOH-NE_PHA_lymphocytes_CNBr AF	HsNaOH-NE_PHA_lymphocytes_CNBr dNSAF	HsNaOH-NE_PHA_lymphocytes_Tl_1 AF	HsNaOH-NE_PHA_lymphocytes_Tl_1 dNSAF	HsSD-NE_PHA_lymphocytes_Tl_1 AF	HsSD-NE_PHA_lymphocytes_Tl_1 dNSAF	PHA-bNEs Detected # Out of 5	PHA-bNEs dNSAF AVG	PHA-bNEs dNSAF SDV	MmNaOH-MM_liver_CNBrTl_1 dNSAF	MmNaOH-MM_liver_CNBrTl_2 dNSAF	RnNaOH-MM_liver_Tl_1 dN SAF	RnNaOH-MM_liver_Tl_2 dN SAF	RnNaOH-MM_liver_Tl_3 dN SAF	RnNaOH-MM_liver_Tl_4 dN SAF	RnNaOH-MM_liver_PK_1 dN NSAF	RnNaOH-MM_liver_PK_2 dN NSAF	Region_Note	GO_Component	GO_Function
1	9	0.007262	3	2.36E-05	307.2379		ENSG00000100242	UNC84B	SUN-2	Hodzic et al, 20	gi|31742498|ref|NP_	unc-84 homolog B [Homo sa	717	80311	6.7		1	i213-235o	Q	33	0	0.008142	0.011739	0.004979	0.003474			5	0.007083	0.003663	0.010524	0.015814					4	0.00744	0.006909	0	5.73E-05	0.000112	0	0	1.94E-05	0	0	Sad1 / UNC-like C-terminal	integral to membrane;	microtubule binding [pmid
2	9	0.003763	3	2.21E-05	170.002		ENSG00000120862	TMPO	LAP2	Foisner and Ge	gi|37260405|ref|NP_	thymopoietin isoform beta [H	454	50670	9.4		1	o411-430	Q	0	0	0.005001	0.005819	0.004138	0.000584			4	0.003885	0.002305	0.008790	0.004863					5	0.003641	0.00402	0	0.000102	4.01E-05	0	0	3.46E-05	0	0	LEM domain. The LEM	chromosome; integral to	DNA binding; lamin binding
3	9	0.001601	1	4.6E-05	34.81905		ENSG00000143815	LBR	LBR	Worman et al, g	gi|37595752|ref|NP_	lamin B receptor [Homo sapie	615	70703	9.4		8	i209-231o	Q	35	0	0.003164	0.002579	0.000611	0.000345			4	0.001475	0.001407	0.001443	0.00332					5	0.001528	0.001262	0	0	0	0	0	0.000368	0	0	Tudor domain; Domain of	integral to membrane [pmid	DNA binding [pmid 8157662]
4	9	0.001314	1	0	INF		ENSG00000132182	NUP210	gp210	Gerace et al, g	gi|24771134|ref|NP_	nucleoporin 210 [Homo sapi	1887	205109	8.8		2	i7-28o1808	S	26	1	0.000859	0.001891	0.001782	0.0003			4	0.00211	0.000765	0.001176	0.002651					5	0.00417	0.000935	0	0	0	0	0	0	0	0	Bacterial Ig-like domain	integral to membrane;	protein binding [pmid
5	9	0.004068	3	0.000119	34.98208		ENSG00000170876	TMEM43	LUMA	Dreger et al, g	gi|13236587|ref|NP_	transmembrane protein 43 [H	400	44876	8.1		0	o32-51300	A	58	0.001	0.00073	0.003207	0.004227	0.001544			4	0.004671	0.001545	0.006658	0.005945					5	0.003459	0.003302	0	0.000463	0.000272	0	0.000196	0	0	0	Golgi apparatus [pmid	chromosome; integral to	
6	8	0.001596	1	3.36E-06	475.4389		ENSG00000143337	TOR1AIP1	LAP1	Senior and Ge	gi|39753957|ref|NP_	lamina-associated polypepti	583	66248	8.2		0	o	O	31	0	0.00306	0.00208	0.000967	0.000545			5	0.001663	0.001134	0.004568	0.001347					5	0.001528	0.002112	0	0	0	0	0	0	0	0	Lamina-associated	integral to membrane;	
7	8	0.001407	1	2.22E-05	63.2545		ENSG00000102119	EMD	emerin	Manilal et al, g	gi|4557553|ref|NP_	emerin [Homo sapiens]	254	28994	5.5		0	i225-247o	Q	0	0	0.002554	0.001286		0.000278			5	0.001029	0.001157	0.005243	0.001678					5	0.001784	0.002422	0	0.000176	0	0	0	0	0	0	LEM domain. The LEM	integral to membrane;	protein binding [pmid
8	5	0.000168	0	0	INF		ENSG00000137404	NRM	Nurim	Rolls et al, 199	gi|25282391|ref|NP_	nurim [Homo sapiens]	262	29379	8.6		4	i5-27o59-8	S	21	0.999	0	8.9E-05	0	6.74E-05			2	3.91E-05	4.6E-05	0	0.000771					3	0.000297	0.000338	0	0	0	0	0	0	0	0			
9	5	2.84E-05	0	0	INF		ENSG00000054654	SYNE2	syne-2	Zhang et al, g	gi|11891840|ref|NP_	spectrin repeat containing, n	6885	796457	5.4		0	o	O	0	0	0	9.32E-05	0	2.05E-05			2	2.97E-05	4.67E-05	0	7.17E-05					3	2.71E-05	3.12E-05	0	0	0	0	0	0	0	0			
10	4	2.34E-05	0	0	INF		ENSG00000131018	SYNE1	syne-1	Apel et al, 200	gi|154277116|ref|NP_	spectrin repeat containing, n	8797	1011050	5.5		0	o	O	0	0	0	6.88E-05	0	3.21E-05			2	2.52E-05	3.28E-05	0	7.91E-05					2	2.16E-05	3.88E-05	0	0	0	0	0	0	0	0			
11	3	7.19E-05	0	0	INF		ENSG00000174106	LEMD3	LEMD3;MAN1	Paulin-Levasse	gi|7706607|ref|NP_0	LEM domain containing 3 [H	911	99997	7.5		2	o472-494d	Q	20	0	0	0.000393	0	1.94E-05			2	9.45E-05	0.000176	0	0.000197					1	4.93E-05	9.85E-05	0	0	0	0	0	0	0	0	LEM domain. The LEM	integral to membrane [pmid	nucleotide binding
12	2	5.69E-05	0	0	INF		ENSG00000164828	UNC84A	SUN-1	Dreger et al, g	gi|15227286|ref|NP_	unc-84 homolog A [Homo sa	702	77911	7.1		2	o177-199d	S	21	0.933	0	0.000199	0	0			1	4.98E-05	9.97E-05	0	1.09E-05					1	6.39E-05	0.00128	0	0	0	0	0	0	0	0			
13	2	2.87E-05	0	0	INF		ENSG00000196313	PCM121C	PCM121	Hallberg et al, g	gi|50378545|ref|NP_	PCM121 membrane glycopr	987	99134	9.9		0	o	Q	39	0.002	0	0.000118	0	0			1	2.95E-05	5.91E-05	0	0					0	0	0	0	0	0	0	0	0	0	0	0			
14	8	0.00169	0	0	INF		ENSG00000184584	TMEM173	NET23	Malik et al, 20	gi|38093659|ref|NP_	transmembrane protein 173	379	42193	7.1		0	o	S	38	0.94	0.002995	0.000623	0.002974	0.000606			4	0.001875	0.001288	0.003514	0.002309					4	0.001506	0.001697	0	0	0	0	0	0	0	0			
15	7	0.000217	0	0	INF		ENSG00000173821	RNF213	NET57	Malik et al, 20	gi|66571327|ref|NP_	ring finger protein 213 [Homo	3280	373981	6.9		0	o	S	35	0	0	0.000505	0.000115	9.16E-05			3	0.000178	0.000224	0.000271	0.000499					5.47E-05	0.000199	4	0.000256	0.000185	0	0	0	0	0	0	0	RING-finger (Really		metal ion binding; protein
16	6	0.001041	0	0	INF		ENSG00000121940	HCR57	NET50	Malik et al, 20	gi|7063189|ref|NP_0	dehydrogenase/reductase (S	339	38295	8.3		2	i5-23o	S	29	0.986	0.002287	0.001445	0.001108	0.000208			3	0.001406	0.001106	0	0.002581					0	0.000113	2	0.000674	0.001273	0	0	0	0	0	0	0	Short-chain dehydrogenase		oxidoreductase activity
17	6	0.000594	0	0	INF		ENSG00000161904	LEMD2	NET25	Brachner et al, g	gi|31044432|ref|NP_	LEM domain containing 2 [H	503	56935	9		2	o209-231d	Q	27	0	0.000645	0.000371	0.001404			3	0.000627	0.000635	0.001765	0.000401					0	7.58E-05	2	0.000561	0.000821	0	0	0	0	0	0	0	in nuclear membrane-	nuclear envelope	
18	6	0.000301	0	0	INF		ENSG00000176438	C14orf49	NET53; nesprin	Wilhelmsen et	g|145680592|ref|NP	nesprin-3 [Homo sapiens]	975	112216	6.2		1	o927-949c	Q	0	0	0.000333	0.000393	0.000385	5.44E-05			4	0.000283	0.000154	0.000911	0.000368					0	0	2	0.00032	0.00043	0	0	0	0	0	0	0			
19	6	0.000192	1	2.21E-06	86.92041		ENSG00000146699	SMPD4	NET13	Malik et al, 20	gi|38576454|ref|NP_	neutral sphingomyelinase 3	837	94585	8.3		0	o799-821	Q	58	0.05	0.000387	0.000334	0	0.00108			3	0.000247	0.000184		0.000424			3.9E-05	0.00049	3	0.000178	0.000278	0	1.77E-05	0	0	0	0	0	0			
20	6	0.000103	0	0	INF		ENSG00000135372	NAT10	NET43	no, Malik et al, g	gi|13399322|ref|NP_	N-acetyltransferase 10 [Hom	1025	115748	8.3		0	o	Q	25	0	0	6.83E-05	0	5.17E-05			2	3E-05	3.53E-05	0.000433	8.76E-05					0.000111	7.49E-05	4	0.000177	0.000172	0	0	0	0	0	0	0	Putative ATPase	nucleus [pmid 11214970]	acyltransferase activity; ATP
21	5	0.000162	5	0.000463	0.349006		ENSG00000129912	NCLN	NET59	Malik et al, 20	gi|18730031|ref|NP_	nicalin [Homo sapiens]	563	62974	6.9		2	i12-34o52	A	43	0.293	0.000288	0.00029	0	0.000251			3	0.000207	0.000139	0	0.000438					2.9E-05	0	2	0.000117	0.000215	0.000785	0.000986	0.000805	0.000684	0.000445	0	0	Predicted aminopeptidases	endoplasmic reticulum;	
22	5	0.000116	0	0	INF		ENSG00000158941	RGAA1967	NET35	no, Malik et al, g	gi|45648408|ref|NP_	RGAA1967 protein [Homo sapi	923	102922	5.2		0	o	Q	35	0.062	0	0.000227	0	0.000288			2	0.000124	0.000144	0	2.43E-05					3.54E-05	0.000374	3	0.000108	0.000178	0	0	0	0	0	0	0	calcium ion binding	cytoplasm [pmid 15824730];	calcium ion binding
23	5	0.000106	0	0	INF		ENSG00000184967	NOG4L	NET49	no, Malik et al, g	gi|13129068|ref|NP_	nucleolar complex associates	516	58468	7.5		0	o	S	31	0.007	0	0.000136	0	0.000205			2	8.53E-05	0.000102	0	0.000304					0.000127	7.44E-05	3	0.000126	0.00013	0	0	0	0	0	0	0	CBF/Mak21 family;	integral to membrane;	protein binding [pmid
24	5	9.73E-05	0	0	INF		ENSG00000134186	PRPF38B	NET1		gi|8922358|ref|NP_	PRPF38 pre-mRNA processin	542	63753	10.5		0	o	Q	24	0	0.004	8.61E-05	0.000347	0.000163			3	0.000149	0.000148	0	4.14E-05					0	0.000142	2	4.58E-05	6.68E-05	0	0	0	0	0	0	0	PRP38 family. Members of		
25	5	1.34E-05	1	2.01E-06	6.689513		ENSG00000164880	INTS1	NET28		gi|12293737|ref|NP	integrator complex subunit 1	2381	264069	6.6		0	o	Q	17	0.002	0	3.92E-05	0	2.23E-05			2	1.54E-05	1.9E-05	0	9.42E-06					2.06E-05	1.61E-05	3	1.15E-05	8.95E-06	0	0	0	0	0	0	0			
26	4	0.000342	2	6.61E-05	5.176487		ENSG00000113719	ERGIC3	NET24	Malik et al, 20	gi|72534712|ref|NP_	endoplasmic reticulum-golgi	290	32592	7.1		2	o20-42d	A	47	0.002	0	0.001367	0.000648	0.000183			2	0.000549	0.00061	0	0.000542					0	0	2	0.000135	0.000271	0	0.00035	0	0	0.000179	0	0	Protein of unknown function	endoplasmic reticulum; ER-	protein binding [pmid
27	4	0.000192	6	0.001935	0.099061		ENSG00000125968	ELOVL2	NET31	Schirmer et al, g	gi|28329992|ref|NP_	phosphosphatidylglycerol acy	370	43089	8.9		4	o20-42d	A	33	0.096	0	0.000603	0	0.000127			2	0.000241	0.000327	0	0.000104					0	0	2	0.000162	0.0002	0	0.00325	0.002696	0.00598	0.003215	0.000179	0.000166	Phosphate	cytoplasm [pmid 10942590];	acyltransferase activity;
28	4	0.000133	0	0	INF		ENSG00000146842	TMEM209	NET31	Schirmer et al, g	gi|6634816|ref|NP_	transmembrane protein 209	561	62922	8.6		2	i28-45o58	Q	41	0.104	0	0.000409	0	0.000126			3	0.000156	0.000236	0	0.000044					0	0	1	0.00011	0.00022	0	0	0	0	0	0	0	MLTD_N; pfam06474		
29	4	7.71E-05	1	4.87E-06	15.83878		ENSG00000119707	RBM25	NET52		gi	55741709	ref	NP_0	RNA binding motif protein 25	843	100186	6.3		0	o	Q	55	0.001	0	0	0.000356			1	8.91E-05	0.000178	0	7.98E-05					0.000136	4.55E-05	3	6.52E-05	5.71E-05	0	0	0	3.9E-05	0	0	RNA-binding proteins (RRM		mRNA binding; nucleic acid
30	3	0.000212	0	0	INF		ENSG00000145699	RHOAP5A	NET6	Malik et al, 20	gi|50061419|ref|NP_	Rho/Rac/Cdc42 and CdcA/Ra	356	42196	8.3		0	o40-62o	A	59	0.011	0	0.000655	0	0			2	0.000194	0.000328	0	0.000539					0	0	2	7.16E-05	0.000124	0	0	0	0	0	0	0	RhoGAP; CdcGAP; RhoGAP		
31	3	0.000163	6	0.002079	0.078174		ENSG00000143653	SCCPDH	NET11	Malik et al, 20	gi|5777836|ref|NP_	saccharopine dehydrogenase	429	47151	9.1		1	o277-299c	Q	21	0.175	0	0.000109	0	0			1	2.72E-05	5.44E-05	0.001035	0.000157					0	0	2	0.000298	0.000497	0	0.006254	0.003128	0.00213	0.00332	0.001443	0.000358	Saccharopine		oxidoreductase activity;
32	3	6.62E-05	2	4.15E-05	1.597916		ENSG00000195233	ALG2	NET38	Malik et al, 20	gi|14891836|ref|NP_	asparagine-linked glycosylat	416	47092	7		0	o	Q	30	0	0	5.61E-05	0	4.25E-05			2	2.46E-05	2.9E-05	0	0.000431					0	0	2	0.000108	0.000216	0	0	0.000219	0	0.000113	0	0	Glycosyl transferases	integral to membrane;	transferase activity,
33	3	6.25E-05	0	0	INF		ENSG00000058004	TMEM48	NET3	Schirmer et al, g	gi|21359924|ref|NP_	transmembrane protein 48 [H	674	76363	9		2	i20-45o65	A	42	0.061	0	0.000208	0	2.62E-05			2	5.85E-05	0.0001	0	0.000268					0	0	1	6.66E-05	0.000133	0	0	0	0	0	0	0	Homeobox prospero-like	integral to membrane;	structural constituent of
34	3	3.11E-05	0	0	INF		ENSG00000116754	SFRS11	NET32		gi|45219100|ref|NP_	splicing factor, arginine/serin	484	53542	10.5		0	o	Q	18	0.006	0	0.000145	0	3.65E-05			2	4.53E-05	6.84E-05	0	0					6.74E-05	0	1	1.69E-05	3.37E-05	0	0	0	0	0	0	0	RNA recognition motif;	nucleus [pmid 1896467]	nucleic acid binding;
35	3	1.86E-05	1	8.1E-06	2.295792		ENSG00000162408	ENOL9	NET9		gi|40217805|ref|NP_0	hypothetical protein 9 [Homo sa	702	79277	9.2		0	o	Q	27	0.001	0	6.65E-05	0	5.03E-05			2	2.92E-05	3.43E-05	0	3.2E-05					0	0	1	7.99E-06	1.6E-05	0	6.48E-05	0	0	0	0	0	Predicted GTPase or GTP-	nucleus	
36	2	0.000473	1	8.22E-05	5.750196		ENSG00000133935	C14orf1	NET51	Schirmer et al, g	gi|6005719|ref|NP_0	hypothetical protein LOC111	140	15808	9.9		4	i5-27o47-4	B	27	0.923	0	0.002499	0	0			1	0.000625	0.00125	0	0.001282					0	0	1	0.00032	0.000641	0	0	0	0	0	0.000658	0	Erg28 like protein. This is a	endoplasmic reticulum;	
37	2	8.87E-05	0	0	INF		ENSG00000188907	TMEM201	NET5	Malik et al, 20	gi|51975544|ref|NP_	transmembrane protein 201	392	43382	8.7		0	o	S	28	0.722	0	0.000599	0	0			1	0.000314	0.000628	0	0.000114					0	0	1	2.86E-05	5.72E-05	0	0	0	0	0	0	0			
38	2	7.93E-05	0	0	INF		ENSG00000147475	ERLIN2	NET32	Chen et al, 20	gi|6005721|ref|NP_0	ER lipid raft associated 2 [Ho	339	37840	5.6		0	o	S	22	0.977	0.000478	0	0	0.000156			2	0.000159	0.000226	0	0					0	0	0	0	0	0	0	0.000222	0	0	0	0	A subgroup of the band 7	endoplasmic reticulum [pmid	
39	2	5.68E-05	1	2.78E-05	2.047737		ENSG00000175826	DULLARD	NET56	Schirmer et al, g	gi|31542547|ref|NP_	dullard homolog [Homo sapi	244	28377	9.8		1	i7-29o	S	23	0.912	0	0.000382	0	7.24E-05			2	0.000114	0.000182	0	0					0	0	0	0	0	0	0	0.000222	0	0	0	0	NLI interacting factor-like		phosphoric monoester
40	2	3.58E-05	0	0	INF		ENSG00000188976	NOC2L	NET45		gi|15769451|ref|NP_	nucleolar complex associate	749	84605	5.6		0	o	Q	24	0.004	0	0	0	0			1	0	0	0	3E-05					0	0.000256	2	7.16E-05	0.000124	0	0	0	0	0	0	0			
41	2	2.79E-05	5	0.000158	0.179127		ENSG00000149476	DAK	NET45	Malik et al, 20	gi|20149621|ref|NP_	dihydroxyacetone kinase 2 [H	575	58947	7.5		0	o	Q	20	0.213	0	0	0.000184			1	4.81E-05	9.22E-05	0	3.9E-05					0	0	1	9.75E-06	1.95E-05	0	0.00032	0.000377	8.32E-05	0.000298	0.000169	0	DAK2 domain. This domain		ATP binding; glycerone
42	2	2.55E-05	0	0	INF		ENSG00000101413	C20orf77	NET60		gi|10348845|ref|NP_	Regulation of nuclear pre-mR	326	36900	6		0	o	Q	38	0.004	0	0	5.42E-05	1			1	1.35E-05	2.71E-05	0	0.00015					0	0	1	3.75E-05	7.51E-05	0	0	0	0	0	0	0	CID (CTD-Interacting		
43	2	2.02E-05	0	0	INF		ENSG00000163811	KIAA0943	NET12		gi|15774304|ref|NP_0	WD repeat domain 43 [Homo	677	74891	5.6		0	o	Q	28	0.09	0	0	0	0			1	0	0	4.82E-05	0.000113					0	0	1	4.04E-05	5.37E-05	0	0	0	0	0	0	0			
44	2	1.18E-05	0	0	INF		ENSG00000163694	RBM47	NET18		gi|148833513|ref|NP	RNA binding motif protein 47	593	64099	7.7		0	o	Q	21	0.004	0	0	2.98E-05	1			1	7.45E-06	1.49E-05	0	0					0.47E-05	1	1	1.62E-05	3.24E-05	0	0	0	0	0	0	0			
45	2	8.67E-06	0	0	INF		ENSG00000135763	KIAA0133	NET10		gi|7661932|ref|NP_0	Hypothetical protein LOC081	1524	170569	7.5		0	o	S	19	0.001	0	0	0	0			1	4.42E-05	8.84E-05	0	2.52E-05					0	0	1	1.73E-05	2.15E-05	0	0	0	0	0	0	0			
46	2	4.92E-06	0	0	INF		ENSG00000120733	JMJD1B	NET22		gi|38372909|ref|NP_	jumonji domain containing 1B	1761	191610	7.2		0	o	S	34	0.997	0	0	3.01E-05	1			1	7.52E-06	1.5E-05	0	9.27E-06					0	0	1	2.32E-06	4.63E-06	0	0	0	0	0	0	0	Jmj/C domain. The Jmj/C	nucleus	iron ion binding; metal ion
47	2	1.66E-06	0	0	INF		ENSG00000136709	WDR33	NET14	no, Malik et al, g	gi|56243590|ref|NP_	WD repeat domain 33 isoform	1331	145410	9.1		0	o	Q	21	0	0	0	1.33E-05	1			2	3.32E-06	6.64E-06	0	0					0	0	1	1.60E-05	3.21E-05	0	0	0	0	0	0	0	WD40 domain, found in a	cytoplasm; nucleus [pmid	
48	1	7.81E-05	1	3.54E-05	2.205761	Y	ENSG00000184633	TMEM14C	NET28	Schirmer et al, g	gi|7661932|ref|NP_0	Hypothetical protein LOC081	112	11565	9.9		4	i7-29o33-5	Q	33	0.388	0	0.000623	0	0			1	0.000158	0.000312	0	0					0	0.000283	1	1.73E-05	2.15E-05	0	0	0	0	0	0	0	Transmembrane proteins	integral to membrane;	
49	1	6.56E-05	6	0.002071	0.031667		ENSG00000148809	TMT5F2	NET47	Malik et al, 20	gi|17741450|ref|NP	transmembrane 5 superfamil	418	46408	8.9		7	i13-35o62	S	37	0.997	0	0	0	0			1	0	0	0	0.000525					0	0	1	0.000131	0.000262	0	0	0	0	0	0	0			
50	1	2.31E-05	0	0	INF		ENSG00000115398	WDR75	NET16	no, Malik et al, g	gi|28786203|ref|NP_0	WD repeat domain 75 [Homo	830	94499	6		0	o	Q	0	0	0	0	0	0			1	0	0	0	0					0	0	1	4.63E-05	9.25E-05	0	0	0	0	0	0	0	WD40 domain, found in a	nucleus	
51	1	6.52E-05	0	0	INF		ENSG00000225153	ZMIZ2	NET27		gi	38407110	ref	NP_0	zinc finger, MIZ-type containi	894	93981	7.2		0	o	Q	52	0.009	0	5.22E-05	0	0			1	1.3E-05	2.61E-05	0	0					0	0	1	1.19E-05	2.39E-05	0

rk	NEs detected # out of 10 runs	NEs dNSAF_AVG	MMs detected # out of 8 runs	MMs dNSAF_AVG	NEs:MMs	Detected in Mitochondria	ORTHO_GROUP	GENE_NAME	NET_NAME	Location & Gene Expression Data	Locus	Description	Length	MW	pI	PredHel	TMHMM_Topology	SIGNALP_HMM_PMP	SIGNALP_HMM_SPOS	SIGNALP_HMM_SPROB	RESTING LYMPHOCYTES NEs: HsNaOH-NE_NT_lymphocytes_CNBr_T1_1_dNSAF	HsNaOH-NE_NT_lymphocytes_T1_1_dNSAF	HsNaOH-NE_NT_lymphocytes_PK_1_dNSAF	HsSD-NE_NT_lymphocytes_T1_1_dNSAF	HsSD-NE_NT_lymphocytes_PK_1_dNSAF	NT-dNEs Detected # Out of 5	NT-dNEs AVG	NT-dNEs SDV	PHA-TREATED LYMPHOCYTES NEs: HsNaOH-NE_PHA_lymphocytes_CNBr_T1_1_dNSAF	HsNaOH-NE_PHA_lymphocytes_T1_1_dNSAF	HsSD-NE_PHA_lymphocytes_T1_1_dNSAF	HsSD-NE_PHA_lymphocytes_PK_1_dNSAF	PHA-dNEs Detected # Out of 5	PHA-dNEs AVG	PHA-dNEs SDV	MMs: MmNaOH-MM_liver_CNBrTi_1_dNSAF	MmNaOH-MM_liver_CNBrTi_2_dNSAF	RnNaOH-MM_liver_Ti_1_dNSAF	RnNaOH-MM_liver_Ti_2_dNSAF	RnNaOH-MM_liver_Ti_3_dNSAF	RnNaOH-MM_liver_Ti_4_dNSAF	RnNaOH-MM_liver_PK_1_dNSAF	RnNaOH-MM_liver_PK_2_dNSAF	Region_Note	GO_Component	GO_Function
101	2	6.36E-05	0	0	NF		ENSGO00001185905	C16orf54	UNET?		gi|48233642|ref|NP_	hypothetical protein LOC283	224	24360	6.7		i31-53	A			0.112																											
102	2	6.05E-05	0	0	NF		ENSGO00001128973	CLN6	UNET?		gi	8923532	ref	NP_	CLN6 protein [Homo sapiens	311	35919	8.9		47-69o84-L	O			0.209																															
103	2	5.62E-05	0	0	NF		ENSGO00001184113	HPCL4	UNET?		gi	89861215	ref	NP_	hypothetical protein LOC643	453	49459	6.7		5-13-32o43-L	S			0.727																															
104	2	5.54E-05	0	0	NF		ENSGO00001140023	C3orf28	UNET?		gi	49355721	ref	NP_	growth and transformation d	154	17342	9.8		o103-120	Q			0.105																															
105	2	5.32E-05	0	0	NF		ENSGO00001242208	TMEM189	UNET?		gi	40806193	ref	NP_	transmembrane protein 189	270	31136	6.7		o46-68t75-Q				0.065																															
106	2	4.95E-05	0	0	NF		ENSGO00001172992	DCAKD	UNET?		gi	19923601	ref	NP_	dephospho-CoA kinase dom	231	26549	9.6		i207-229t	Q			0.213																															
107	2	3.98E-05	0	0	NF		ENSGO00001104381	GDAP1	UNET?		gi	10877397	ref	NP_	ganglioside-induced different	358	41346	8.4		i292-309o	Q			0.0013																															
108	2	3.88E-05	0	0	NF		ENSGO00001364044	TMESF1	UNET?		gi	13194199	ref	NP_	transmembrane 6 superfamil	370	41664	7.6		t5-27o32-S	S			0.742																															
109	2	3.59E-05	0	0	NF		ENSGO00001172987	TMEM63A	UNET?		gi	7662338	ref	NP_	transmembrane protein 63A	807	92160	7.3		i149-711o	A			17																															
110	2	3.08E-05	0	0	NF		ENSGO00001198513	SPG3A	UNET?		gi	19923445	ref	NP_	atlastin isoform a [Homo sap	558	63544	6.2		i446-468o	Q			0																															
111	2	2.61E-05	0	0	NF		ENSGO00001364004	TMEM179B	UNET?		gi	13194199	ref	NP_	transmembrane 6 superfamil	219	23966	8.5		i9-28o64-R	S			27	0.998																														
112	2	2.11E-05	0	0	NF		ENSGO00001170088	TMEM192	UNET?		gi	15424074	ref	NP_	transmembrane protein 192	271	30922	8		i48-70o92	A			0																															
113	2	2.09E-05	0	0	NF		ENSGO00001446567	FAM134A	UNET?		gi	31543176	ref	NP_	hypothetical protein LOC791	543	57789	4.5		i203-225	S			36	0.93																														
114	2	2.08E-05	0	0	NF		ENSGO00001166604	TMEM194A	UNET?		gi	58037066	ref	NP_	growth and transformation d	371	41999	8.2		i112-134o	S			44	0.972																														
115	2	2.01E-05	0	0	NF		ENSGO00001070269	C14orf101	UNET?		gi	93277080	ref	NP_	hypothetical protein LOC549	707	79536	8.4		i23-45o65	A			51	0.208																														
116	2	1.85E-05	0	0	NF		ENSGO00001099686	USP48	UNET?		gi	26330449	ref	NP_	ubiquitin specific protease 48	1035	119032	6.1		i87-109o	Q			18	0.001																														
117	2	1.84E-05	0	0	NF		ENSGO00001177054	ZDHHC13	UNET?		gi	94733346	ref	NP_	zinc finger, DHHC domain c	622	70861	8.1		i290-312o	Q			0		7.5E-05																													
118	2	1.58E-05	0	0	NF		ENSGO00001177119	TMEM16F	UNET?		gi	70778895	ref	NP_	transmembrane protein 16F	910	106131	7.8		i295-317o	Q			0		7.69E-05																													
119	2	1.42E-05	0	0	NF		ENSGO00001180776	ZDHHC20	UNET?		gi	94967567	ref	NP_	zinc finger, DHHC-type contai	354	41098	7.9		i43-32o52	A	4.99E-05		30	0.142																														
120	2	1.21E-05	0	0	NF		ENSGO00001176915	ANKLE2	UNET?		gi	148664230	ref	NP_	hypothetical protein LOC231	938	104114	7.1		i13-32o	S	3.49E-05		0																															
121	2	9.13E-06	0	0	NF		ENSGO00001821341	TDRKH	UNET?		gi	145312270	ref	NP_	tudor and KH domain contain	561	62046	5		i17-34o	Q	3.15E-05		31	0.22																														
122	2	4.75E-06	0	0	NF		ENSGO00001542088	FNDC3B	UNET?		gi	27477059	ref	NP_	fibronectin type III domain co	1204	132600	5.9		i1179-1200	Q			33	0.001																														
123	2	2.56E-06	0	0	NF		ENSGO00001207202	KIAA0100	UNET?		gi	57242774	ref	NP_	hypothetical protein LOC970	2235	253698	7.1		i5-27o	S			19	0.995																														
124	2	2.00E-06	0	0	NF		ENSGO00001831172	C2orf72	UNET?		gi	213147809	ref	NP_	hypothetical protein LOC319	107	11342	8.1		i65-94o	S			27	0.998																														
125	1	0.000625	2	3.25E-05	19.24109		ENSGO00001307488	TMEM160	UNET?		gi	8923477	ref	NP_	transmembrane protein 160	188	19657	8		2-99-121o	S			48	0.759																														
126	1	0.000369	0	0	NF		ENSGO00001734361	C1orf155	UNET?		gi	73912720	ref	NP_	chromosome 1 open reading	78	8808	8.5		i13-35o	A			59	0.002																														
127	1	0.000254	1	2.99E-05	8.487215		ENSGO00001710021	TMEM126A	UNET?	Fig. 4, 5, 6	gi	41509077	ref	NP_	transmembrane protein 126A	195	21527	9.3		i165-87o109	Q			0		0.0002033																											
128	1	0.000136	0	0	NF		ENSGO00001839788	CCDC56	UNET?		gi	94536771	ref	NP_	coiled-coil domain containing	106	11731	9.6		i58-80o	Q			16	0																														
129	1	7.38E-05	0	0	NF		ENSGO00001748960	TMEM70	UNET?		gi	27374988	ref	NP_	transmembrane protein 70 ka	260	28969	8.2		i103-135o	S			35	0.881																														
130	1	6.63E-05	0	0	NF		ENSGO00001639000	TMEM41A	UNET?	Fig. 4, 5	gi	180878133	ref	NP_	transmembrane protein 41A	264	29665	9		i64-2168-8	S			18	0.981		0.00053								1	0.000133	0.000265															
131	1	5.3E-05	0	0	NF		ENSGO00001227774	TMEM93	UNET?		gi	62339424	ref	NP_	transmembrane protein 93 [h	110	12017	10.1		i246-268t	S			52	0		0.000424								1	0.000106	0.000212																		
132	1	3.06E-05	0	0	NF		ENSGO00001216767	C9orf64	UNET?		gi	89229897	ref	NP_	hypothetical protein LOC557	183	20192	8.8		i106-128o	Q			28	0.084																														
133	1	2.78E-05	0	0	NF		ENSGO00001688569	MGC3196	UNET?		gi	12937442	ref	NP_	hypothetical protein LOC790	202	22049	11		i44-66o96	A			28	0.363																														
134	1	2.72E-05	0	0	NF		ENSGO00000909971	NAT14	UNET?		gi	23943862	ref	NP_	N-acetyltransferase 14 [Hom	61	7005	6.9		i55-77i	A			61	0.005																														
135	1	1.91E-05	0	0	NF		ENSGO00001207226	GPR18	UNET?		gi	20722667	ref	NP_	G protein-coupled receptor 1	440	49395	7.4		i173-192o	S			23	0																														
136	1	1.91E-05	0	0	NF		ENSGO00001754891	LRRC25	UNET?		gi	45993138	ref	NP_	leucine rich repeat containing	305	33179	5.1		i166-188t	S			21	0.998																														
137	1	1.51E-05	0	0	NF		ENSGO00001642527	MCC4	UNET?		gi	42476210	ref	NP_	transmembrane and coiled-c	634	67941	5.8		i190-212o	Q			25	0.005																														
138	1	1.17E-05	0	0	NF		ENSGO00001064545	TMEM161A	UNET?		gi	8923394	ref	NP_	transmembrane protein 161A	479	53602	8.4		i105-127o	S			29	0.994																														
139	1	1.08E-05	0	0	NF		ENSGO00001163933	RFT1	UNET?		gi	16418361	ref	NP_	RFT1 homolog [Homo sapien	541	60335	8.9	12	i13-35o45	S			34	0.602																														
140	10	0.002309	0	0	NF		ENSGO00002045237	HLA-B			gi|17986001|ref|NP_	major histocompatibility com	362	40460	5.9		i308-330t	S			25	1	0.000149	0.003452	0.008823	0.001026						5	0.00363	0.003899	0.001226	0.002396	0.000311	0.000186																
141	10	0.001234	4	6.83E-05	18.06		ENSGO00001812377	PTRC			gi	18641347	ref	NP_	protein tyrosine phosphatase	1304	147254	6.2		c578-600t	S	24	0.988	0.001617	0.002629	0.002593	0.000433						5	0.001818	0.001036	0.00034	0.001772	0.00025	0.000236																
142	9	0.001103	4	9.72E-05	15.73675		ENSGO00001580404	AP1			gi	96652489	ref	NP_	ATPase, ATP-binding d	808	91000	6.1		i74-96o110	Q	22	0.157	0.001024	0.001959	0.003993	0.000175						4	0.00165	0.001171	0.000127	0.000905	0.000127	0.000151																
143	8	0.005807	0	0	NF		ENSGO00002065031	HLA-A			gi	24797067	ref	NP_	major histocompatibility com	365	40841	6		i308-330t	S	25	1	0.006664	0.005355	0.016988	0.004194						4	0.007625	0.006616	0.009720	0.004606	0.001436	0.000184																
144	8	0.001967	0	0	NF		ENSGO00001284429	MAP4K4			gi	18594466	ref	NP_	mitogen-activated protein k	306	34388	8.9		i273-292o	Q	0	0	0.00371	0.003201	0.002465	0.000853						4	0.002601	0.002128	0.002901	0.002128	0.001338	0.000553																
145	8	0.001427	0	0	NF		ENSGO00001124933	TAPBP			gi	27436893	ref	NP_	tapasin isoform 1 precursor [	448	47571	7		i414-436	S	21	1	0	0.00026	0.003774	0.000828						4	0.001216	0.00174	0.002153	0.003543	0.000546	0.003856																
146	8	0.000541	0	0	NF		ENSGO00002045251	C1O7			gi	52630342	ref	NP_	major histocompatibility com	366	40649	6		i306-328t	S	25	1	0.000148	0.001311	0	0.000899						4	0.000589	0.000622	0.001213	0.000922	0.000156	0																
147	8	0.000535	1	4.49E-05	11.93138		ENSGO00001450475	GALT			gi	45407575	ref	NP_	galactose-1-phosphate uridyl	1170	128849	5.6		i5-27o106	S	26	0.979	0.000852	0.000578	0.001968	0.001245						4	0.000662	0.000578	0.000852	0.000578	5.58E-05	6.56E-05																
148	8	0.000515	3	4.49E-05	11.4917		ENSGO00001673223	STIM1			gi	21070997	ref	NP_	stromal interaction molecule	685	77423	6.7		i214-232o	S	23	1	0.00142	0.000468	0.000274	0.000103						4	0.000567	0.000588	0.001296	0.000426	2.38E-05	0.000112																
149	7	0.001226	0	1.18E-05	103.7688		ENSGO00001662270	SARCO/ENDOPLASMIC	UNET?		gi	28373175	ref	NP_	sarcoplasmic/endoplasmic	398	40649	6		i360-382t	S	23	0.038	0.002381	0.001708	0.002272	0.002086						4	0.000791	0.000854	0.000266	0.00025	0.000098	0																
150	7	0.001218	0	0	NF		ENSGO00001811425	C2CA5	UNET?		gi	16071435	ref	NP_	solute carrier family 25, mem	298	32852	9.7		o109-131t	Q	25	0.124		0.001656	0.001656	0.000615						4	0.000773	0.000897	0.000808	0.000698	0.002147	0.001683																
151	7	0.001153	0	0	NF		ENSGO00002063061	HLA-DRB4			gi	16916923	ref	NP_	PREDICTED: major histocom	279	31647	8.4		i2-26824-L	S	30	0.995	0.000387	0.002952	0	0.00038						3	0.00093	0.00136	0.003182	0.002021	0.000117	0.000183																
152	7	0.000853	2	2.37E-05	42.2588		ENSGO00001562272	ITGB2			gi	89191655	ref	NP_	integrin beta 2 precursor [H	769	84762	5.7		i701-723t	S	29	0.999	0.002168	0.000605	0.000489	0.000436						4	0.001274	0.000966	0.002168	0.000605	4.72E-05	0.000143																
153	7	0.000837	4	8.55E-05	9.788422		ENSGO00001651683	CYB5			gi	6996021	ref	NP_	cytochrome b-245, beta polyp	570	65336	8.6		i10-32o98	A	26	0.171	0.002561	0.000941	0.00033	0.00465						4	0.001074	0.001025	0.000779	0.000945	0.000673	0.000599																
154	7	0.000495	0	0	NF		ENSGO00001635271	ST13B			gi	30578410	ref	NP_	source of immunodominant h	826	93674	8.9		i66-85t14-Q	S	33	0.012	0.000393	0.000452	0.000455	0.000214						4	0.000378	0.000113	0.001612	0.000462	0.000375	0																
155	7	0.00018	0	0	NF		ENSGO00002045252	HLA-E			gi	29123479	ref	NP_	major histocompatibility com	358	40598	5.8		i305-327t	S	25	1	0.000199	0.000151	0.000122	0.000061						3	0.000109	0.000075			0.000071	0																
156	6	0.003248	3	5.92E-05	54.88613		ENSGO00002042871	HLA-DRA			gi	52426774	ref	NP_	major histocompatibility com	254	28621	5		i217-239t	S	26	0.996		0.001901	0.011835	0.001113						3	0.003712	0.005471		0.002616	6.43E-05	0.008458																
157	6	0.002463	1	0	NF		ENSGO00001811275	STOM			gi	38016051	ref	NP_	stomatin isoform a [Homo sa	288	31731	7.9		i32-54	A	0	0	0.009009	0.000966	0.000966	0.000966						3	0.003064	0.004501	0.004624	0.002181		0.000966																
158	6	0.001063	0	0	NF		ENSGO00001655345	ITGB3			gi	47078292	ref	NP_	integrin beta chain, beta 3 pr	788	87058	5.2		i719-741t	S	27	0.971	0.003293	0.000296	0.003576	6.72E-05						3	0.001808	0.001884	0.000563	0.000712		0																
159	6	0.000759	0	0	NF		ENSGO00001086598	TMED2			gi	5803149	ref	NP_	coated vesicle membrane pr	201	22761	5.2		i24-23i69	S	21	0.998		0.001741	0.000935	8.79E-05						3	0.000691	0.000817		0.00279	0.003325	0.000191																
160	6	0.000742	1	1.55E-05	47.84383		ENSGO00001714522	BCS1L			gi	11994730	ref	NP_	BCS1-like [Homo sapiens]	419	47534	8.5		o	A	33	0.997	0.001161	0.000946		8.43E-05						3	0.000853	0.000462		9.18E-05		0.000462																
161	6	0.00054	0	0	NF		ENSGO00001963196	PTPN1			gi	4506289	ref	NP_	protein tyrosine phosphatase	435	49967	6.3		i409-431t	Q	0	0	0.000375	0.00432	0.000244						3	0.000263	0.000192		0.000877	0.00045	0.001941																
162	6	0.000477	0	0	NF		ENSGO00001842720	HIST2H2AB			gi	28192394	ref	NP_	histone cluster 2, H2ab [Hom	130	13990	10.9		o	A	22	0.069		0.000314		0.001223						3	0.000284	0.000578		0.000374	0.000386	0																
163	6	0.000424	0	0	NF		ENSGO00001435541	C27A3			gi	13236579	ref	NP_	solute carrier family 27 [Hom	730	78644	7.5		i48-70o	Q	65	0.01	0.000222	0.000616		7.26E-05						3	0.000114	0.756E-05	0.002432	0.000004		0.000105																
164	6	0.000286	0	0	NF		ENSGO00002065081	CD44			gi	48255935	ref	NP_	CD44 antigen isoform 1 prec	742	81538	5.3		i650-672t	S	21	0.997	0.000874	0.000314	0.00076	0.000167						4	0.000529	0.000341		0.000151	2.2E-05	0																
165	6	0.000265	1	1.89E-05	13.96811		ENSGO00001537115	SEL1L			gi	19023669	ref	NP_	sel-1 suppressor of lin-12-like	794	88755	5.4		i739-761t	S	0	0	0.000613	0.000219		2.22E-05						3	0.000229	0.000224	0.001118	0.000228	2.59E-05	0			7.52E-05			7.64E-05								
166	6	0.000623	0	0	NF		ENSGO00001691001	SLC25A6			gi	15607146	ref	NP_	solute carrier family 25, mem	298	32866	9.7		i172-194o	Q	25	0.049		0.005435		0.008658						2	0.003523	0.004276		0.002807	0.000128	0																
167	5	0.001499	0	0	NF		ENSGO00001965518	NDUFB4			gi	13141862	ref	NP_	PREDICTED: similar to NAD	129	15209	9.8		i88-105t	Q	21	0	0.002514	0.000542	0.001456						3	0.001128	0.001102	0.006882		0.000595	0																
168	5	0.001229	0	0	NF		ENSGO00001962824	HLA-DRB1			gi	45404147	ref	NP_	major histocompatibility com	266	29914	7.7		i228-250t	S	30	0.996	0.000559		0.000659						2	0.000152	0.002745	0.003337		6.14E-05	0.000221																
169	5	0.001185	0	0	NF		ENSGO00002046427	HLA-F			gi	14918968	ref	NP_	major histocompatibility com	346	39062	5.6		i305-327t	S	22	1	0.002699	0.002715	0.001032						3	0.001452	0.00119		0.00352	0.000151																	
170	5	0.000964	0	0	NF		ENSGO00002045238	HLA-A29.1			gi	16916658	ref	NP_	major histocompatibility com	365	40992	5.7		i308-330t	S	25	1	0.004572	0.001029	0.001453	0.000145						3	0.001437	0.002339		0.001778		0																
171	5	0.000935	1	6.42E-06	145.7369		ENSGO00001593448	CYBSR1			gi	49574502	ref	NP_	NAD(P)H:quinone oxidoredu	305	34095	9.4		i7-29o	S	27	0.809		0.000918	0.004928	5.79E-05						3	0.001476	0.002339		0.001324		0.000252																
172	5	0.000831	5	9.56E-05	8.693477		ENSGO00001399211	THEDC2			gi	15110129	ref	NP_	thioredoxin domain containin	280	31791	5		o4-23i39	S	27	1	0.001158	0.001083	0.003355	0.000252						4	0.001462	0.001327		0.000801		0																
173	5	0.000742	0	0	NF		ENSGO00001642488	PRDX2			gi	4503694	ref	NP_	peroxiredoxin 2, neuroprotei	267	28518	9.3		i7-26o	S	28	0.999		0.001448		0.001191						2	0.000868	0.000762	0.001662	0.000588		0.000588																
174	5	0.000718	0	0	NF		ENSGO00001448677	SRPRB			gi	14911713	ref	NP_	signal recognition particle rec	271	29651	9		i37-54o	A	60	0.001197	0.001377	0	0.000326						3	0.000725	0.000667		0.001573		0.001275																
175	5	0.000691	0	0	NF		ENSGO00001665251	SOAT1			gi	45633617	ref	NP_	sterol O-acyltransferase (acy	550	64735	8.9		i140-162o	S	0	0	0.000885	0.000297	0	6.42E-05						3	0.000511	0.000403	0.004035	0.000245		0																
176	5	0.000645	4	6.92E-05	9.321851		ENSGO00001858866	LAMP1			gi	12380628	ref	NP_	lysosomal-associated mem	417	44882	8.7		i211-33o38	S	29	1	0.001167	0.000559		0.000551						3	0.000549	0.00477	0.002129	0.000753		0			0.000227	8.91E-05		7.69E-05	0.00016							
177	5	0.000581	0	0	NF		ENSGO00001985021	HLA-DRB5			gi	18641375	ref	NP_	major histocompatibility com	266	30056	6.9		i228-250t	S	30	0.991	0.000559	0.000611		0						2	0.000292	0.000338	0.003337		6.14E-05	7.7E-05																
178	5	0.000432	1	1.97E-05	21.9482		ENSGO00001734400	ITGAM			gi	88501734	ref	NP_	integrin alpha M precursor [	1152	127175	5.4		i1108-1138	S	17	0.999	0.002252	0.000163	0.000163	0.000123						4	0.000243	0.000303		0.000331		1.58E-05																
179	5	0.000401	0	0	NF		ENSGO00001018566	PGRMC1			gi	5729875	ref	NP_	progesterone receptor membr	195	21671	4.7		i20-42i	Q	49	0.022	0	0.001927	0.000272						3	0.00058	0.000905		0.000691		0																
180	5	0.000333	0	0	NF		ENSGO00001884861	HAPX			gi	4504253	ref	NP_	HA histone family, member	143	15145	10.7		o	A	62	0.116	0	0.000285	0	0.001112						3	0.000349	0.000526		0.000285		0																
181	5	0.00032	0	0	NF		ENSGO00001944123	NPEP			gi	10742775	ref	NP_	aminopeptidase	1011	115630	5.7		i98-117o	Q	0	0	0.000465	0.001672	5.24E-05						3	0.000547	0.000779		0.000223	3.88E-05	0																
182	5	0.000314	0	0	NF		ENSGO00001460678	ITGAX			gi|34452173|ref|NP_	integrin alpha X precursor [H	20	0.999	0.000139	0.000116	0.001939	4.56E-05	4	0.999	0.000547	0	0.000116	0.000139		4.56E-05						3	0.000251	0.000413		0.000231		0															
183	5	0.000278	3	3.32E-05	8.375947		ENSGO00001614644	PGU			gi	7996101	ref	NP_	phosphatidylinositol glycan a	435	50052	7.7		o	A	18	1	0.000748	0.000214	0	4.06E-05						3	0.000325	0.000343	0.00102	0.000208	8.34E-05	0.000111	7.2E-05															
184	5	0.000237	2	2.49E-05	9.520225		ENSGO00001409863	RHOT2			gi	20270303	ref	NP_	Ras homology gene family, m	531	61118	5.9		o593-615t	Q	31	0.012		0.000668		5.26E-05						2	0.000189	0.000322		0.000653	5.28E-05	0.000435																
185	5	0.000236	4	3.37E-05	6.987656		ENSGO00001413851	AFG3L2			gi	5802970	ref	NP_	AFG3 ATPase family gene 3	797	88484	6.7		p148-163q	Q	32	0.272		0.000585	0.000236	0.000199

rk	NEs detected # out of 10 runs	NEs dNSAF_A VG	MMs detected # out of 8 runs	MMs dNSAF_A VG	NEs:MMs	Detected in Mitochondria	ORTHO_GROUP	GENE_NAME	NET_NAME	Location & Gene Expression Data	Locus	Description	Length	MW	pI	PredHel	SIGNALP _TMHMM _TYPE (S= signal; A= Anchor; Q= none)	SIGNALP_HMM_POS	SIGNALP_HMM_PROB	RESTING LYMPHOCYTES NEs						PHA-TREATED LYMPHOCYTES NEs						MMs								
																				HsNaOH-NE_NT_lymphocytes_CNBr_Tl_1_dNSAF	HsNaOH-NE_NT_lymphocytes_Tl_1_dNSAF	HsNaOH-NE_NT_lymphocytes_PK_1_dNSAF	HsSD-NE_NT_lymphocytes_Tl_1_dNSAF	HsSD-NE_NT_lymphocytes_PK_1_dNSAF	NT-dNEs Detected # Out of 5	NT-dNEs AVG	NT-dNEs SDV	HsNaOH-NE_PHA_lymphocytes_CNBr_Tl_1_dNSAF	HsNaOH-NE_PHA_lymphocytes_Tl_1_dNSAF	HsNaOH-NE_PHA_lymphocytes_PK_1_dNSAF	HsSD-NE_PHA_lymphocytes_Tl_1_dNSAF	HsSD-NE_PHA_lymphocytes_PK_1_dNSAF	PHA-dNEs Detected # Out of 5	PHA-dNEs AVG	PHA-dNEs SDV	MmNaOH-MM_liver_CNBrTl_1_dNSAF	MmNaOH-MM_liver_Tl_1_dNSAF	RnNaOH-MM_liver_Tl_1_dNSAF	RnNaOH-MM_liver_Tl_2_dNSAF	RnNaOH-MM_liver_Tl_3_dNSAF	RnNaOH-MM_liver_Tl_4_dNSAF	RnNaOH-MM_liver_PK_1_dNSAF	RnNaOH-MM_liver_PK_2_dNSAF	Region_Note	GO_Component	GO_Function
247	3	0.000135	0	0	NF		ENSG00000033011	ALG1			gi|41350216|ref|NP_	beta-1,4-mannosyltransferase	464	52518	7.2		6-23a	S	22	0.998	0	0.000706	0	0	0	1	0.000176	0.000352	0	0	0	0	2	9.32E-05	0.000137	0	0	0	0	0	0	0	0	Glycosyl transferases	endoplasmic reticulum;	chitobiosyldiphosphodolichol
248	3	0.000122	1	4.99E-06	24.67023		ENSG00000010610	CD4			gi|10835167|ref|NP_	CD4 antigen precursor [Hom	458	51111	9.5		o398-420	S	26	-	0	0.000611	0	0.00027		2	0.00022	0.00029	0	9.8E-05	0	0	0	0	0	0	1.45E-05	4.9E-05	0	0	3.97E-05	0	0	0	0	0	CD4, extracellular.	integral to membrane; plasma	coreceptor activity [pmid
249	3	0.000109	0	0	NF		ENSG00000154463	SLA15			gi|42868809|ref|NP_	sialidase (cytochrome c) asse	455	45298	9.7		i498-520Q	S	55	0.068	0	0.000283	0	0	0	0	0	0	0	0	0	0	0	0.00031	0	0	0	0	0	0	0	0	0	Preprotein translocase	integral to membrane;	
250	3	9.56E-05	1	1.78E-05	5.384833		ENSG00000114718	GPCTL			gi|32119029|ref|NP_	glutamyl-peptide cyclotrans	382	42924	9.8		i33-55c	S	48	0.109	0	0.000568	0	4.62E-05	0	2	0.000103	0.000177	0	0.000352	0	0	0	0	0	0	9.81E-05	0.000176	0	0.000142	0	0	0	0	0	0	Peptidase family M28;		peptidase activity;
251	3	9.18E-05	0	0	NF		ENSG00000198053	SRPK4			gi|91105767|ref|NP_	signal-regulatory protein alph	504	54967	7		i309-331	S	31	0.000644	4.63E-05	0	0	0	0	1	0.000172	0.000315	0	4.45E-05	0	0	0	0	0	0	1.11E-05	2.23E-05	0	0	0	0	0	0	0	0	Immunoglobulin domain	integral to membrane; plasma	
252	3	8.8E-05	1	9.34E-06	9.425772		ENSG00000182220	ATRAP2			gi|15011918|ref|NP_	ATPase, H+ transporting, lys	350	39008	6.1		i309-331	S	17	-	0	0.000333	0	5.05E-05	0	2	0.000159	0.000215	0	0.000203	0	0	0	0	0	0	8.01E-05	0.00016	0	0	0	7.47E-05	0	0	0	0	Renin receptor-like protein.	integral to membrane;	receptor activity
253	3	8.51E-05	1	1.26E-05	6.755208		ENSG00000197858	GPAA1			gi|45040079|ref|NP_	glycosylphosphatidylinositol	621	67623	8.1		70-420-436	A	47	0.018	0	0.000263	0	5.69E-05	0	2	8E-05	0.000125	0	0.000361	0	0	0	0	0	0.000101	0	9.03E-05	0.000181	0	0	0	0	0	0	0	0	Gaa1-like, GPI	endoplasmic reticulum; GPI-	GPI anchor binding [pmid
254	3	8.29E-05	0	0	NF		ENSG00000139133	ALG10			gi|147904264|ref|NP_	asparagine-linked glycosylat	473	55606	9.3		i35-57c	S	31	0.936	0	0.000345	0	0	0	1	8.63E-05	0.000173	0	0.000237	0	8.12E-05	2	7.96E-05	0.000112	0	0	0	0	0	0	0	0					
255	3	8.26E-05	0	0	NF		ENSG00000082218	ETMEM49			gi|20070349|ref|NP_	transmembrane protein 49 [H	406	46238	8.9		i44-63o78	Q	19	0	0	0.000172	0	0	0	0	4.31E-05	8.62E-05	0	0.000378	0	0.000378	2	2.00E-05	0.000178	0	0	0	0	0	0	0	0	SNARE associated Golgi	endoplasmic reticulum [pmid	
256	3	8.25E-05	0	0	NF		ENSG00000182858	ALG12			gi|13121914|ref|NP_	asparagine-linked glycosylat	488	54655	9.6		i12-31o63	S	26	0.969	0	0.000239	0	0.000145		2	9.59E-05	0.000117	0	0.000276	0	0	0	0	0	0	9.6E-05	0.000138	0	0	0	0	0	0	0	0	Alg3-like	endoplasmic reticulum;	
257	3	8.01E-05	1	6.87E-06	11.6479		ENSG00000182387	HLA-B			gi|15100177|ref|NP_	HLA-B associated transcript	558	63963	8.2		i460-482Q	S	14	0	0	0.000035	0	6.33E-05	0	2	0.000201	0.000284	0	0.000201	0	0	0	0	0	5.50E-05	0	8.03E-05	0.000101	0	0	0	0	0	0	0	0	alpha/beta hydrolase fold	endoplasmic reticulum;	
258	3	7.84E-05	0	0	NF		ENSG00000164171	ITGA2			gi|116295258|ref|NP_	integrin alpha 2 precursor [H	1181	129296	5.3		i1132-1155	S	30	0.999	0.000549	5.92E-05	0	0	0	2	0.000152	0.000266	0	1.9E-05	0	0	0	0	0	0	4.75E-06	9.5E-06	0	0	0	0	0	0	0	0		endoplasmic reticulum;	
259	3	7.66E-05	0	0	NF		ENSG00000135776	ABCB10			gi|9961244|ref|NP_0	ATP-binding cassette, sub-fa	738	79099	9.9		o171-193q	S	39	0.767	0	0.00019	0	0	0	0	4.74E-05	9.48E-05	0	0.000319	0	0.000104	2	0.000106	0.00015	0	0	0	0	0	0	0	0	MTABC3 (also known as	ATP-binding cassette (ABC)	ATP binding [pmid
260	3	7.32E-05	0	0	NF		ENSG00000079885	CSAM1			gi|19923107|ref|NP_	glycosaminoglycan antigen-re	526	57560	9.1		i443-465q	S	35	0.999	0	0.000177	0	6.72E-05	0	2	6.11E-05	0.000127	0	0.000177	0	0	0	0	0	0	8.53E-05	0.000171	0	0	0	0	0	0	0	0		integral to membrane; integral	
261	3	7.28E-05	0	0	NF		ENSG00000187688	TRPV2			gi|20127551|ref|NP_	transient receptor potential c	764	85981	5.8		i391-413oQ	S	18	0	0	6.11E-05	0.000492	0	0	0	0.000138	0.000237	0	2.94E-05	0	0	0	0	0	0	7.34E-06	1.47E-05	0	0	0	0	0	0	0	0	ankyrin repeats; ankyrin	integral to membrane; plasma	calcium channel activity;
262	3	6.66E-05	0	0	NF		ENSG00000136378	PLCH			gi|21362092|ref|NP_	lysophosphatidic acid acyltra	434	48705	8.9		i10-32r18	S	30	0.999	0.000374	0.000107	0	0	0	2	0.00012	0.000176	0	5.17E-05	0	0	0	0	0	0	1.29E-05	2.58E-05	0	0	0	0	0	0	0	0	Acyltransferase. This family		acyltransferase activity;
263	3	6.45E-05	0	0	NF		ENSG00000558604	IGTR3			gi|50020695|ref|NP_0	glucosamine family 2 (facilita	496	53924	7.2		i10-31o63	S	22	0.743	0	4.7E-05	0	0	0	2	0.000106	0.000183	0	2.26E-05	0	0	0	0	0	0	5.62E-06	1.12E-05	0	0	0	0	0	0	0	0	Sugar (and other)	integral to membrane;	glucose transporter activity
264	3	6.37E-05	0	0	NF		ENSG00000112303	YNN2			gi|17865814|ref|NP_	vanin 2 isoform 1 precursor [	520	58521	6.5		i499-518	S	23	0.942	0	0.000269	0	6.79E-05	0	2	8.43E-05	0.000127	0	0.000173	0	0	0	0	0	0	4.31E-05	8.63E-05	0	0	0	0	0	0	0	0		integral to membrane;	GPI anchor binding;
265	3	5.1E-05	0	0	NF		ENSG00000109736	ETEWAN			gi|20127449|ref|NP_	4-hydroxybutyrate transporter-like p	455	48353	9.6		i24-46o86	A	57	0.179	0	0.000359	0	0	0	2	8.97E-05	0.000179	0	4.93E-05	0	0	2	1.23E-05	0.000154	0.01-0.15	0	0	0	0	0	0	0	Arabinose efflux permease		monocycline transporter
266	3	4.99E-05	2	7.19E-06	6.934904		ENSG00000152270	PDE3B			gi|40254434|ref|NP_	phosphodiesterase 3B, cGM	1112	124333	5.9		i80-102o1	Q	0	0	0	0.000189	0	0	0	1	4.72E-05	9.44E-05	0	0.000141	0	6.9E-05	2	5.26E-05	6.75E-05	0	0	4.34E-05	1.41E-05	0	0	0	0	Metal dependent	membrane	3',5'-cyclic-nucleotide
267	3	4.94E-05	0	0	NF		ENSG00000149218	ENDOD1			gi|14822565|ref|NP_	endonuclease domain contai	500	55017	5.7		o342-364s	S	22	0.998	0	0.00028	0	7.07E-05	0	2	8.76E-05	0.000132	0	4.49E-05	0	0	0	0	0	0	1.12E-05	2.24E-05	0	0	0	0	0	0	0	0			
268	3	4.89E-05	0	0	NF		ENSG00000110057	ENUR1			gi|45827036|ref|NP_	enuresis 1 [Homo sapiens]	519	60657	7		i60-82o11	Q	19	0	0	3.91E-05	0.000315	0	0	0	8.84E-05	0.000152	0	3.76E-05	0	0	0	0	0	0	9.39E-06	1.88E-05	0	0	0	0	0	0	0	0			
269	3	4.55E-05	0	0	NF		ENSG00000176454	AGPAT7			gi|87116681|ref|NP_	PLSC domain containing pro	524	57219	9		i40-62o	A	55	0.001	0	0	0	3.37E-05	0	1	8.43E-06	1.69E-05	0	0.000257	0	7.33E-05	2	8.25E-05	0.000121	0	0	0	0	0	0	0	0		endoplasmic reticulum;	1-acylglycerol-3-phosphate
270	3	4.44E-05	1	1.64E-06	27.03432		ENSG00000171862	EGFR			gi|119964275|ref|NP_	insulin-like growth factor 2 re	1367	24274	5.5		i235-233S	S	41	1	0	7.49E-05	0.000236	0	0	0	7.57E-06	0.000107	0	5.4E-05	0	0	0	0	0	0	1.35E-05	1.67E-05	0	0	1.31E-05	0	0	0	0	0			
271	3	2.92E-05	0	0	NF		ENSG00000127526	SLC35E1			gi|19923607|ref|NP_	solute carrier family 35, mem	286	30218	9.6		i21-40o44	A	53	0.36	0	8.77E-05	0	0	0	1	2.19E-05	4.38E-05	0	8.43E-05	0	6.14E-05	2	3.64E-05	4.31E-05	0	0	0	0	0	0	0	0	Triose-phosphate	integral to membrane;	
272	3	2.9E-05	0	0	NF		ENSG00000134061	CD180			gi|5031895|ref|NP_0	CD180 molecule [Homo sapi	661	74165	6.4		i627-649s	S	19	0.962	0	0.000106	0	0	0	1	2.65E-05	5.29E-05	0	6.79E-05	0	5.81E-05	2	3.15E-05	3.66E-05	0	0	0	0	0	0	0	0	Leucine-rich repeats	integral to membrane; plasma	protein binding [pmid
273	3	2.78E-05	0	0	NF		ENSG00000126353	CCR7			gi|45026069|ref|NP_0	chemokine (C-C motif) recep	378	43874	8.5		i57-83s	S	25	0.99	0	6.17E-05	0	0	0	1	1.54E-05	3.09E-05	0	5.94E-05	0	0.000102	2	4.02E-05	4.92E-05	0	0	0	0	0	0	0	0	7 transmembrane receptor	integral to plasma membrane;	C-C chemokine receptor
274	3	2.7E-05	1	5.36E-06	5.03415		ENSG00000095752	CLCN3			gi|55770838|ref|NP_0	chloride channel 3 isoform b	818	90966	6.3		i128-150oQ	Q	0	0	0	5.7E-05	0	2.16E-05	0	2	1.97E-05	2.95E-05	0	0.000137	0	0	0	0	0	4.29E-05	0	3.43E-05	6.86E-05	0	0	0	0	0	0	0	0	CIC-3-like chloride channel	cell surface [pmid 12471024]	chloride ion binding; PDZ
275	3	2.57E-05	0	0	NF		ENSG00000151324	PORCN			gi|51513187|ref|NP_	porcupine homolog [Homo sa	461	53837	8.4		o	S	36	0.214	0	0	0	3.8E-05	0	1	8.98E-06	1.8E-05	0	9.14E-05	0	7.52E-05	2	4.24E-05	4.92E-05	0	0	0	0	0	0	0	0			
276	3	2.09E-05	0	0	NF		ENSG00000102401	ARMCX3			gi|29540566|ref|NP_0	armadillo repeat containing,	379	42501	8.4		i7-29o	A	24	0.807	0	6.15E-05	0	4.66E-05	0	2	2.7E-05	3.18E-05	0	5.92E-05	0	0	2	1.48E-05	2.96E-05	0	0	0	0	0	0	0	0	Protein of unknown function	integral to membrane;	binding
277	3	1.91E-05	0	0	NF		ENSG00000136213	CHST12			gi|8922112|ref|NP_0	carbohydrate (chondroitin 4)	414	48414	9.3		i7-26o	S	32	0.575	0	5.63E-05	0	4.27E-05	0	2	2.48E-05	2.91E-05	0	5.42E-05	0	0	0	0	0	0	1.35E-05	2.71E-05	0	0	0	0	0	0	0	0	Sulfotransferase.	integral to Golgi membrane	3'-phosphoadenosine 5'-
278	3	1.77E-05	0	0	NF		ENSG00000134325	BIP1			gi|15727059|ref|NP_0	transmembrane protein 41B [	487	54498	8.9		i16-38o	S	31	0.919	0	9.58E-05	0	0	0.000312	2	2.36E-05	4.76E-05	0	4.61E-05	0	0	0	0	0	0	1.15E-05	2.3E-05	0	0	0	0	0	0	0	0			
279	3	1.52E-05	0	0	NF		ENSG00000125746	EML2			gi|8912356|ref|NP_0	echinoderm microtubule asso	649	70679	6.3		i71-93o	Q	0	0	0	2.72E-05	0	0	0	1	6.8E-06	1.36E-05	0	6.91E-05	0	2.51E-05	2	2.36E-05	3.26E-05	0	0	0	0	0	0	0	0	HELP motif. The HELP	microtubule; microtubule	
280	3	1.45E-05	0	0	NF		ENSG00000137642	SORL1			gi|4507157|ref|NP_0	sortilin-related receptor conta	2124	248440	5.5		i2136-2159	S	29	1	0	2.11E-05	0	2.39E-05	0	2	1.13E-05	1.3E-05	0	7.09E-05	0	0	0	0	0	0	1.77E-05	3.55E-05	0	0	0	0	0	0	0	0	Low Density Lipoprotein	integral to plasma membrane	lipid transporter activity;
281	3	1.36E-05	0	0	NF		ENSG00000138626	P2RX7			gi|4507192|ref|NP_0	purinergic, beta 7 [Homo sapien	798	86903	6		o724-746	S	20	1	0	5.85E-05	0	2.21E-05	0	2	2.01E-05	2.76E-05	0	2.81E-05	0	0	0	0	0	0	7.03E-06	1.41E-05	0	0	0	0	0	0	0	0	Integrin beta subunits (N-	integral to membrane; integrin	identical protein binding
282	3	1.29E-05	0	0	NF		ENSG00000185803	GPR172A			gi|13375682|ref|NP_0	G protein-coupled receptor 1	445	45777	7.2		i9-31o46-6	S	26	0.999	0	5.24E-05	0	0	0.000512	2	1.31E-05	2.62E-05	0	5.04E-05	0	0	0	0	0	0	1.26E-05	2.52E-05	0	0	0	0	0	0	0	0	Protein of unknown function	receptor activity	
283	3	0.000863	1	7.21E-05	12.25209		ENSG00000125652	EDAD1			gi|54503253|ref|NP_0	Ectodysplasin-A receptor-dea	113	12907	7.5		i20-51b6	A	42	0.005	0	0.000413	0.000651	0	0	0	0.00176	0.00352	0	0.000362	0	0	0	0	0.000576	0	0	0	0	0	0	0	0	EDAD family. Members of		dolichyl-
284	2	0.000487	2	6.77E-05	7.196949		ENSG00000166471	ETMEM41B			gi|56392190|ref|NP_0	transmembrane protein 41B	291	32513	9.6		i50-72o11	A	65	0.001	0	0	0	0	0	0	0	0	0.000581	0.000848	0	0	0	0	0.000501	0	0.000436	0	0	0	0	0	0.000105	SNARE associated Golgi	endoplasmic reticulum [pmid	
285	2	0.000477	1	5.07E-05	9.414569		ENSG00000099203	TMED1			gi|5803040|ref|NP_0	interleukin 1 receptor-like 1 is	227	25206	4.5		o193-215	S	24	-	0	0.000331	0	0	0	1	0.000828	0.001655	0	0	0	0.000507	1	0.000127	0.000254	0	0	0	0	0	0	0	0.000406	emp24/gp25L/p24	integral to membrane;	receptor binding [pmid
286	2	0.000361	1	2.8E-05	12.9		ENSG00000136732	CYP7C			gi|45042229|ref|NP_0	cytochrome C isoform 1 [Hom	128	15811	9.4		i59-81	Q	26	0.263	0.002534	0	0	0	0	1	0.000261	0.000522	0	0.000351	0	0	0	0	0	0	8.76E-05	0.000175	0	0	0	0	0	0	0	0	dually active	cortical cytoskeleton [pmid	protein binding [pmid
287	2	0.000297	0	0	NF		ENSG00000108958	LOC100132717			gi|169162550|ref|XP_	PREDICTED: hypothetical pr	135	14770	9.7		o40-62e9	A	56	0.019	0	0.001209	0	0	0	1	0.000302	0.000605	0	0.001163	0	0	0	0	0	0	1.0002E-05	0.00582	0	0	0	0	0	0	0	0			
288	2	0.000283	0	0	NF		ENSG00000114902	SPCS1			gi|66472394|ref|NP_	signal peptidase complex sub	102	11805	9.3		o20-42a47	A	40	0.002	0	0.001601	0	0	0	1	0.0004	0.0008	0	0.00066	0	0	0	0	0	0	0.000165	0.00033	0	0	0	0	0	0	0	0	Microsomal signal	endoplasmic reticulum;	signal peptidase activity
289	2	0.000271	0	0	NF		ENSG00000164919	CO6C			gi|47984040|ref|NP_0	Cytochrome c oxidase subun	75	9281	7		i20-37	A	36	0.286	0	0.001898	0	0	0	1	0.000379	0.000933	0	0.000269	0	0	0	0	0	0	7.48E-05	0.0003	0	0	0	0	0	0	0	0		integral to membrane;	cytochrome c oxidase
290	2	0.000231	0	0	NF		ENSG00000179344	HLA-DQB1			gi|15041802|ref|NP_0	three prime repair exonuclea	314	33212	7.9		i232-251s	S	31	0.975	0	0.001072	0	0	0	1	0.000268	0.000536	0	0	0	0.000772	1	0.000193	0.000386	0	0	0	0	0	0	0	0			
291	2	0.000219	0	0	NF		ENSG00000170325	Hsrt9B			gi|20870592|ref|NP_0	hc10-interacting CARD protei	183	20924	8.1		i126-143o	Q	0	0	0	0.00102	0	0	0	1	0.000736	0.00147	0	0.000235	0.00051	0	0	0	0	0	0.000184	0.00368	0	0	0	0	0	0	0	0		cytosol [pmid 15637807]	CARD domain binding [pmid
292	2	0.000205	0	0	NF		ENSG00000170906	NDUFA3			gi|4758772|ref|NP_0	NADH dehydrogenase (ubiq	84	9279	8.5		i20-39i	A	30	0.16	0	0	0	0	0	1	0.000267	0.000534	0	0.000287	0	0.001371	2	0.00041	0.000653	0	0	0	0	0	0	0	0		integral to membrane;	NADH dehydrogenase
293	2	0.000192	0	0	NF		ENSG00000204310	AGPAT1			gi|15100175|ref|NP_0	1-acylglycerol-3-phosphate (1	283	31717	9.4		i73-89o39	S	29	0.994	0	0.000824	0	0	0	1	0.000206	0.000412	0	0.000634	0	0	0	0	0	0	1.00059E-05	0.000317	0	0	0	0	0	0	0	0	Acyltransferase. This family	endoplasmic reticulum [pmid	1-acylglycerol-3-phosphate
294	2	0.000175	0	0	NF		ENSG00000158714	SLAM8			gi|9910342|ref|NP_0	SLAM family member 8 [Hom	285	32916	8.2		i234-256i	S	24	0.999	0	5.85E-05	0	0.001318	0	1	0.000292	0.000584	0	2.87E-05	0	0	0	0	0	0	9.57E-06	3.94E-05	0	0	0	0	0	0	0	0		integral to membrane;	
295	2	0.000152	0	0	NF		ENSG00000177674	AGTRAP			gi|93588491|ref|NP_0	angiotensin II receptor-assoc	152	16669	6.3		i24-46i53	S	34	0.501	0.001067	0	0	0	0	1	0.000267	0.000533	0	0.000148	0	0	0	0	0	0	3.69E-05	7.38E-05	0	0	0	0	0	0	0	0	Angiotensin II, type I	endoplasmic reticulum;	
296	2	0.000138	0	0	NF		ENSG00000129226	SIGLEC9			gi|23943586|ref|NP_0	sialic acid binding Ig-like lect	463	50082	6.3		i343-370s	S	18	0.678	0.001051	5.04E-05	0	0	0	1	0.000101	0.000202	0	0.000518	0	0	0	0	0	0	1.29E-05	2.58E-05	0	0	0	0	0	0	0	0	Immunoglobulin V-set	integral to plasma membrane	protein binding; sugar binding
297	2	0.000123	0	0	NF		ENSG00000142892	PIGK			gi|23199693|ref|NP_0	phosphatidylinositol glycan a	395	45252	6.2		i7-29o364	S	28	0.999	0	0.000104	0	0	0	1	0.000133	0.000266	0	0.000454	0	0	0	0	0	0	1.0001E-05	0.000227	0	0	0	0	0	0	0	0	Glycosylphosphatidylinositol	endoplasmic reticulum; GPI-	GPI anchor binding [pmid
298	2	0.000122	0	0	NF		ENSG00000173762	CD7			gi|5453613|ref|NP_0	CD7 antigen precursor [Hom	240	25409	7.2		i178-200s	S	26	-	0	0.000194	0.000783	0	0	0	0.000244	0.000371	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Immunoglobulin domain	integral to membrane	receptor activity [pmid
299	2	0.000118	0	0	NF		ENSG00000185291	IL6ST			gi|11067279|ref|NP_0	CD53 antigen [Homo sapiens	304	24141	9.1		i413-35o50-A	A	30	0.174	0	0.000107	0.000859	0	0	0	0.000152	0.000304	0	0.000414	0	0	0	0	0	0	5.9E-05	0.000118	0	0	0	0	0	0	0	0	Tetraspanin, extracellular	integral to plasma membrane;	
300	2	0.000118	0	0	NF		ENSG00000149564	ESAM			gi|14866420|ref|NP_0	endothelial cell adhesion mol	390	41176	9.3		i248-270i	S	30	0.997	0.000832	0	0	0	0	1	0.000531	0.00106	0	0.000208	0.000416	0	0	0.000115	0	1	2.88E-05	5.75E-05	0	0	0	0	0	0	0	0			
301	2	0.000116	0	0	NF		ENSG00000143753	DEGS1			gi|21614501|ref|NP_0	degenerative spermatocyte h	323	37866	7.5		i643-6165	A	0	0	0	0.000578	0	0	0	0	0.000144	0.000289	0	0.000347	0	0	0	0.000147	0	0	8.68E-05	0.000174	0	0	0	0	0	0	0	0	The Delta4-sphingolipid	endoplasmic reticulum [pmid	electron carrier activity [pmid
302	2	0.000115	0	0	NF		ENSG00000127471	SPN			gi|19799937|ref|NP_0	sialophorin [Homo sapiens]	400	42628	8.9		i255-277i	S	20	1	0	0.000588	0	0	0	1	0.000147	0.000294	0	0.000337	0	0	0	0	0	0	8.41E-05	0.000202	0	0	0	0	0	0	0	0	Herpes

rk	NEs detected # out of 10 runs	NEs dNSAF_A VG	MMs detected # out of 8 runs	MMs dNSAF_A VG	NEs:MMs	Detected in Mitochondria	ORTHO_GROUP	GENE_NAME	NET_NAME	Location & Gene Expression Data	Locus	Description	Length	MW	pI	PredHel	TMHMM_Topology	SIGNALP_HMM_PHMM_TYPE (S=signal; A= Anchor; Q= none)	SIGNALP_HMM_POS	SIGNALP_HMM_PROB	RESTING LYMPHOCYTES NEs: HsNaOH-NE_NT_lymphocytes_CNBr_T1_1_dNSAF	HsNaOH-NE_NT_lymphocytes_T1_1_dNSAF	HsNaOH-NE_NT_lymphocytes_T1_1_dNSAF	HsSD-NE_NT_lymphocytes_T1_1_dNSAF	HsSD-NE_NT_lymphocytes_T1_1_dNSAF	NT-bNEs Detected # Out of 5	NT-nNEs AVG	NT-bNEs SDV	PHA-TREATED LYMPHOCYTES NEs: HsNaOH-NE_PHA_lymphocytes_CNBr_T1_1_dNSAF	HsNaOH-NE_PHA_lymphocytes_T1_1_dNSAF	HsNaOH-NE_PHA_lymphocytes_T1_1_dNSAF	HsSD-NE_PHA_lymphocytes_T1_1_dNSAF	HsSD-NE_PHA_lymphocytes_T1_1_dNSAF	PHA-bNEs Detected # Out of 5	PHA-nNEs AVG	PHA-bNEs dNSAF SDV	MMs: MmNaOH-MM_liver_CNBrTi_1_dNSAF	MmNaOH-MM_liver_CNBrTi_2_dNSAF	RnNaOH-MM_liver_Ti_1_dNSAF	RnNaOH-MM_liver_Ti_2_dNSAF	RnNaOH-MM_liver_Ti_3_dNSAF	RnNaOH-MM_liver_Ti_4_dNSAF	RnNaOH-MM_liver_PK_1_dNSAF	RnNaOH-MM_liver_PK_2_dNSAF	Region_Note	GO_Component	GO_Function
394	1	0.000746	0	0	INF		ENSG00000184076	UCRC				ubiquinol-cytochrome c redu	63	7308	9.5	1	(13-32o	A	43	0.121						1	0.00149	0.002982						0	0	0	0	0	0	0	0	0		Ubiquinol-cytochrome C	mitochondrial membrane	oxidoreductase activity;
395	1	0.000569	0	0	INF		ENSG00000105374	NKG7				gi\5031949\ref\NP_	natural killer cell group 7 seq	165	17665	6.4	4	(7-29663-8	S	38	0.755		0	0.004555		1	0.001139	0.002277						0	0	0	0	0	0	0	0	0			integral to plasma membrane	
396	1	0.000561	0	0	INF		ENSG00000167476	KLK5				gi\17366176\ref\NP	kallikrein-related peptidase 5	293	32028	8.3	0	(7-29o	S	30	0.986		0	0.004489		1	0.000561	0.002244						0	0	0	0	0	0	0	0	0				
397	1	0.000439	0	0	INF		ENSG00000149516	EMS4A3				gi\73486949\ref\NP_	membrane-spanning 4-doma	214	22933	5.3	4	(50-72o87-	Q	25	0.001		0	0.003512		1	0.000878	0.001756						0	0	0	0	0	0	0	0	0		CD20/IgE Fc receptor beta	integral to membrane;	receptor activity
398	1	0.000414	0	0	INF		gi\169163403\ref\XP_	LOC100132060				PREDICTED: hypothetical pr	170	17494	4.1	1	o5-27i	S	33	0.997		0	0.003315		1	0.000829	0.001658						0	0	0	0	0	0	0	0	0				
399	1	7.54E-05	0	0	INF		ENSG00000163519	TRA1				gi\54607137\ref\NP_	T-cell receptor interacting mo	186	21211	5.4	1	(o10-32.	S	26	0.912		0			1	0.000863							0	0.000851	0.000302									integral to membrane; plasma	
400	1	7.52E-05	0	0	INF		ENSG00000206302	LOC100133583				gi\169168591\ref\XP	PREDICTED: similar to majo	261	29673	8.5	1	(231-253o	S	33	0.996		0			1	0.000602							0	0.00015	0.000301										
401	1	7.44E-05	0	0	INF		ENSG00000153563	CD8A				gi\2992134\ref\NP_	CD8 antigen alpha polypeptid	235	25729	9.5	1	o184-206.	S	22			0	0.00596		1	0.000149	0.000298						0	0	0	0	0	0	0	0	0		Immunoglobulin V-set	integral to plasma membrane	conceptor activity [pmid
402	1	6.86E-05	0	0	INF		ENSG00000164047	CAMP				gi\9753970\ref\NP_	cathelicidin antimicrobial pep	170	19301	9.4	1	(113-35o	S	31	0.904		0	0.00540		1	0.000137	0.000274						0	0	0	0	0	0	0	0	0		Cathelicidin. A novel protein	extracellular region	
403	1	5.83E-05	0	0	INF		ENSG00000141524	TMC6				gi\23943902\ref\NP_	EVIN1 [Homo sapiens]	805	90079	8.7	10	g212-2342	Q	17	0.013		0	0.000467		1	0.000117	0.000233						0	0	0	0	0	0	0	0	0		TMC domain. These	endoplasmic reticulum;	
404	1	5.83E-05	0	0	INF		ENSG00000164265	CHDH				gi\50593\ref\NP_	choline dehydrogenase, mit	595	71291	8.6	1	(59-121o1	S	37	0.958	0.000467	0			1	0.000117	0.000233						0	0	0	0	0	0	0	0	0		Ion transport protein. This	membrane; membrane	potassium ion binding;
405	1	5.61E-05	0	0	INF		ENSG00000166091	CMTM5				gi\19923993\ref\NP_	chemokine-like factor superfa	156	17444	5.5	4	(35-56o60-	A	59			0	0.00449		0	0	0						1	0.000112	0.000224									extracellular space; integral to	cytokine activity
406	1	5.5E-05	0	0	INF		ENSG00000146066	HIG2A				gi\20270389\ref\NP_	HIG1 domain family, membe	106	11529	10.2	2	(48-70803-	Q	24	0		0	0.00044		0	0	0						1	0.00011	0.00022									Hypoxia induced protein	integral to membrane;	
407	1	4.49E-05	0	0	INF		ENSG00000185885	IFITM3				gi\150010\ref\NP_	interferon induced transmem	125	13938	7.3	2	(37-5985-	Q	21	0.001		0			1	0.000353							0	8.97E-05	0.000175									integral to membrane;	
408	1	4.37E-05	0	0	INF		ENSG00000116337	AMPD2				gi\2164318\ref\NP_	adenosine monophosphate d	879	100688	6.9	0	o	A	27	0.015		0			0								0	8.73E-05	0.000175									AMP deaminase (AMPD)	AMP deaminase activity	
409	1	4E-05	0	0	INF		ENSG00000164054	SCOTIN				gi\27573139\ref\NP_	scotin [Homo sapiens]	240	25582	6.7	1	(108-128	S	29	1		0			1	0.00032	1						0	8E-05	0.00016									nucleus	signal transducer activity	
410	1	3.56E-05	0	0	INF		ENSG00000090661	ELASS4				gi\13375717\ref\NP_	elastin microfibril interface ly	294	46399	9	5	(39-56144	A	56	0.005		0			1	0.000285							1	7.12E-05	0.000142									Longevity-assurance	endoplasmic reticulum;	Sequence-specific DNA
411	1	3.45E-05	1	6.71E-06	5.144154		ENSG00000120942	UBIAD1				gi\7019551\ref\NP_0	UbiA prenyltransferase doma	338	36831	8.2	7	(83-105o11	Q	22			0			1	6.9E-05	0.000138						0	5.37E-05	0									1,4-dihydroxy-2-naphthoate	cytoplasm [pmid 11314041];	Tim17/Tim22/Tim23 family
412	1	3.4E-05	0	0	INF		ENSG00000244152	LOC652952				gi\13421523\ref\NP	PREDICTED: similar to MGC	257	28248	9.4	2	(274-96o12	Q	30	0.195		0			1	6.81E-05	0.000136						0	0	0	0	0	0	0	0	0				
413	1	3.4E-05	0	0	INF		ENSG00000196785	APOL6				gi\13449281\ref\NP_	apolipoprotein L6 [Homo sap	343	38128	8.4	1	(79-101o11	Q	22	0		0	0.00272		1	6.8E-05	0.000136						0	0	0	0	0	0	0	0	0		Apolipoprotein L. Apo L	cytoplasm; extracellular region	lipid binding; lipid transporter
414	1	3.24E-05	0	0	INF		ENSG00000050426	LETMD1				gi\6089165\ref\NP_	LETM1 domain containing 1	360	41790	10.3	1	(139-161o	S	22	0.547		0	0.00259		1	5.48E-05	0.00013						0	0	0	0	0	0	0	0	0		LETM1-like protein.		
415	1	3.19E-05	0	0	INF		ENSG00000171135	CAMKK2				gi\31982921\ref\NP_	jaguna homolog 1 [Homo sa	183	21153	9.7	3	(440-62o07-	A	59	0		0	0.00255		1	5.37E-05	0.000127						0	0	0	0	0	0	0	0	0		Protein of unknown function		
416	1	3.09E-05	0	0	INF		ENSG00000153933	DGKE				gi\4503313\ref\NP_0	diacylglycerol kinase epsilon	567	63927	7.7	1	(o20-42i	A	38	0.005		0	0.00247		1	6.17E-05	0.000123						0	0	0	0	0	0	0	0	0		Protein kinase C conserved	integral to membrane;	ATP binding [pmid 8626589];
417	1	2.98E-05	0	0	INF		ENSG00000163369	CD79A				gi\10386722\ref\NP_	CD79A antigen (cation 2 pro	168	20786	4.8	2	(13-35o108	S	33	0.997		0			1	0.000229							0	5.97E-05	0.000119									integral to membrane;	transmembrane receptor
418	1	2.98E-05	0	0	INF		ENSG00000157916	RER1				gi\11681259\ref\NP	RER1 retention in endoplasm	196	22958	9.5	3	(39-61613-	Q	0	0		0	0.00238		0	0	0						1	5.95E-05	0.000119										
419	1	2.95E-05	0	0	INF		ENSG00000198246	SLC29A3				gi\14856922\ref\NP	solute carrier family 29 (nucl	475	51815	7.8	11	(50-72o10	Q	0	0		0			0	0.000236							0	5.9E-05	0.000118										
420	1	2.93E-05	0	0	INF		ENSG00000331700	FUCA1				gi\30410129\ref\NP	fucosyltransferase 8 isoform	575	66516	7.7	1	(7-29o	S	28	0.533		0			1	0.000234							0	5.85E-05	0.000117									Src homology 3 domains;	Golgi apparatus [pmid	glycoprotein 6-alpha-L-
421	1	2.6E-05	0	0	INF		ENSG00000106560	GIMAP2				gi\28416431\ref\NP	GTPase, IMAP family membe	337	38017	8.2	2	(271-290o2	Q	35	0		0	0.00208		0	0	0						1	5.19E-05	0.000104									AIG1 (avr9pt2-induced	integral to membrane;	GTP binding; nucleotide
422	1	2.51E-05	0	0	INF		ENSG00000158477	RTB				gi\5454186\ref\NP_0	vesicle transport through inte	232	26908	9	2	(207-229o	Q	0	0		0	0.00020		0	0	0						1	5.03E-05	0.000101									Helical region found in	integral to membrane;	
423	1	2.34E-05	0	0	INF		ENSG00000163590	PPM1L				gi\30039056\ref\NP	protein phosphatase 1 (form	360	41053	5.9	0	o	A	38	0.009		0			0	0	0						1	4.67E-05	9.35E-05									Serine/threonine	integral to membrane;	hydrolase activity;
424	1	2.25E-05	0	0	INF		ENSG00000173535	TNFRSF10C				gi\22547121\ref\NP	tumor necrosis factor recepto	259	27395	4.8	2	(7-29g236-	S	24	0.981		0	0.00018		0	0	0						1	4.5E-05	9.01E-05									Tumor necrosis factor	integral to plasma membrane	GPI anchor binding;
425	1	2.22E-05	0	0	INF		ENSG00000169429	PKCBP1				gi\51372658\ref\NP	PICP1 protein [Homo sapiens]	263	45272	5.6	1	(169-191i	S	22	0.988		0	0.00177		0	0	0						1	4.45E-05	8.91E-05									Kringle domain; Kringle		
426	1	2.18E-05	0	0	INF		ENSG00000078124	PHCA				gi\19923527\ref\NP_	phytoceramidase, alkaline [H	267	31566	8.6	2	(129-5163-	Q	22	0		0	0.00175		0	0	0						1	4.37E-05	8.74E-05									Alkaline phytoceramidase	endoplasmic reticulum;	hydrolase activity; hydrolase
427	1	2.15E-05	0	0	INF		ENSG00000122557	HERPUD2				gi\19923834\ref\NP	HERPUD family member 2 [H	406	45177	5.1	1	(292-314i	Q	23	0		0	0.00172		0	0	0						1	4.31E-05	8.62E-05									Herp (Homocysteine-		
428	1	2.02E-05	0	0	INF		ENSG00000139370	SLC15A4				gi\21717816\ref\NP	solute carrier family 15, mem	577	62034	9	10	(515-3245i	S	36	0.899		0	0.00162		0	0	0						1	4.04E-05	8.08E-05									POT family. The POT	integral to membrane;	transporter activity
429	1	1.82E-05	0	0	INF		ENSG00000160404	TOR2A				gi\14586578\ref\NP	torsin family 2, member A lac	321	35715	7.6	1	(12-31o	S	27	0.999		0	0.00145		0	0	0						1	3.63E-05	7.27E-05										
430	1	1.81E-05	0	0	INF		ENSG00000184292	ETACSTD2				gi\40505237\ref\NP	tumor-associated calcium sig	323	35292	8.9	1	(275-297i	S	31	1		0	0.00144		0	0	0						1	3.61E-05	7.22E-05									Thyroglobulin type 1	cytosol [pmid 10192395];	receptor activity [pmid
431	1	1.76E-05	0	0	INF		ENSG00000205060	SLC35B4				gi\14249528\ref\NP	solute carrier family 35, mem	371	37424	9.1	9	o5-24i31-S	S	17	0.993		0	0.00141		0	0	0						1	3.52E-05	7.05E-05									Triose-phosphate	Golgi apparatus [pmid	nucleotide-sugar transporter
432	1	1.74E-05	0	0	INF		ENSG00000136816	TOR1B				gi\14149653\ref\NP	torsin family 1, member B (to	336	37979	8.6	1	(21-43o	S	25	1		0	0.00139		0	0	0						1	3.47E-05	6.94E-05									Torsin. This family consists	endoplasmic reticulum	ATP binding; nucleoside-
433	1	1.73E-05	0	0	INF		ENSG00000138626	ABHD13				gi\49557811\ref\NP	abhydrolase domain contain	337	38548	8.9	1	(65-370fs-	A	55	0		0	0.00138		0	0	0						1	3.46E-05	6.92E-05									Hydrolases of the		hydrolase activity;
434	1	1.66E-05	0	0	INF		ENSG00000103257	SLC7A5				gi\19799932\ref\NP	solute carrier family 7 (cation	507	55010	7.7	11	(53-75o85-	Q	23	0		0			0	0	0						1	0.000133									Amino acid transporters	integral to membrane;	amino acid permease
435	1	1.66E-05	0	0	INF		ENSG00000094332	C1orf166				gi\13375705\ref\NP	mitochondrial ubiquitin ligase	352	39717	8.1	2	(o10-29g24-	S	24	0.713		0	0.00133		0	0	0						1	3.31E-05	6.63E-05									RING-finger (Really	mitochondrion [pmid	metal ion binding; protein
436	1	1.62E-05	0	0	INF		ENSG00000105281	SLC1A5				gi\30320593\ref\NP	solute carrier family 1 (neutra	541	56598	7.1	9	(63-75o95-A	A	36	0.001		0	0.00120		0	0	0						1	3.14E-05	6.28E-05									Sodium:dicarboxylate	integral to plasma membrane	neutral amino acid
437	1	1.57E-05	0	0	INF		ENSG00000174600	CMKLR1				gi\4758014\ref\NP_0	chemokine-like receptor 1 [H	371	42035	8.3	7	(39-61074-	A	0	0		0	0.00125		0	0	0						1	3.14E-05	6.28E-05									7 transmembrane receptor	integral to membrane; integral	C5a anaphylatoxin receptor
438	1	1.57E-05	0	0	INF		ENSG00000158483	SELL				gi\4506679\ref\NP_0	selectin L precursor [Homo s	372	42618	5.6	1	(333-355i	Q	39	0.133		0	0.00125		0	0	0						1	3.13E-05	6.27E-05									Domain abundant in	integral to plasma membrane	protein binding; sugar binding
439	1	1.55E-05	0	0	INF		ENSG00000119714	GPR68				gi\40217829\ref\NP	G protein-coupled receptor 6	375	42088	8	7	(334-5668-	Q	53	0.002		0	0.00124		0	0	0						1	3.11E-05	6.22E-05									7 transmembrane receptor	integral to plasma membrane	receptor activity; rhodopsin-
440	1	1.5E-05	0	0	INF		ENSG00000171044	KKR6				gi\8986484\ref\NP_	KK, Kell blood group complex	641	71638	7.9	6	(130-149o	Q	26	0.01		0			0	0	0						0		0.00012	1.99E-05	5.99E-05										
441	1	1.46E-05	0	0	INF		ENSG00000164555	P2RX1				gi\4505264\ref\NP_0	purinergic receptor P2X1 [Ho	399	44980	8.5	2	(229-51o33-	A	51	0		0	0.00117		0	0	0						1	2.92E-05	5.85E-05									ATP P2X receptor;	integral to plasma membrane	ATP binding; ATP-gated
442	1	1.44E-05	0	0	INF		ENSG00000178607	ERN1				gi\13946421\ref\NP	endoplasmic reticulum to nuc	977	109735	6.4	1	(7-29o	S	19	0.998		0			0	0	0						1		0.000115	2.87E-05	5.74E-05										
443	1	1.39E-05	0	0	INF		ENSG00000131750	TBC1D20				gi\23893\ref\NP_0	TBC1 domain family, membe	403	45855	8.9	2	(238-260o1	S	26	0.01		0			0	0	0						1		0.000111	2.78E-05	5.57E-05								Domain in Tre-2, BUB2p,	integral to membrane;	GTPase activator activity
444	1	1.38E-05	0	0	INF		ENSG00000204977	TRIM13				gi\4713252\ref\NP	ret finger protein 2 isoform 1	407	46988	8	1	(o319-341i	Q	25	0.001		0			0	0	0						1		0.00011	2.76E-05	5.51E-05								RING-finger (Really	intracellular	metal ion binding; protein
445	1	1.36E-05	0	0	INF		ENSG00000181804	SLC9A9				gi\27734935\ref\NP	solute carrier family 9 (sodiu	645	72565	6.2	10	(o20-41i48-	A	41	0		0	0.00108		0	0	0						1	2.71E-05	5.42E-05									NhaP-type Na+/H+ and	integral to membrane;	antiporter activity; sodium
446	1	1.28E-05	0	0	INF		ENSG00000181781	C1orf27				gi\57527156\ref\NP	hypothetical protein LOC549	454	51103	5.5	1	(443-463i	Q	37	0		0	0.00108		0	0	0						1	2.57E-05	5.14E-05											sulfotransferase activity; zinc
447	1	1.28E-05	0	0	INF		ENSG00000152291	TOGLN2				gi\42518068\ref\NP	trans-golgi network protein 2	437	45880	5.6	1	(o385-402i	S	16	1		0			0	0	0						1		0.000103	1.57E-05	5.13E-05								DNA polymerase III	Golgi trans face [pmid	
448	1	1.22E-05	0	0	INF		ENSG00000198555	FICD				gi\42794620\ref\NP	Huntingtin interacting protein	458	51778	7.7	1	(20-42o	S	40	0.914		0			0	0	0						1		9.8E-05	1.45E-05	4.9E-05								Tetratricopeptide repeat		protein binding [pmid
449	1	1.21E-05	0	0	INF		ENSG00000132432	ADAM30				gi\18977756\ref\NP	ADAM metallopeptidase dom	790	89940	7.6	1	(686-708i	S	28	0.994		0			0	9.72E-05	0						1			2.43E-06	4.86E-05								Zinc-dependent	integral to membrane [pmid	
450	1	1.19E-05	0	0	INF		ENSG00000163297	ANTXR2				gi\50513243\ref\NP	anthrax toxin receptor 2 [Hom	348	53493	8.3	1	(319-341i	S	34	0.994		0	9.56E-05		0	0	0						1	2.39E-05	4.78E-05									Anthrax receptor	endoplasmic reticulum;	metal ion binding; protein
451	1	1.16E-05	0	0	INF		ENSG00000205551	GRAMD1A				gi\92110\ref\NP_0	GRAM domain containing 1A	724	80680	6.7	1	(609-630i	Q	36	0		0			0	0	0						1		9.3E-05	1.32E-05	4.65E-05								domain in		
452	1	1.13E-05	0	0	INF		ENSG00000120451	SNX19				gi\15750217\ref\NP	sorting nexin 19 [Homo sapie	992	108632	5.9	1	(229-5153-	A	63	0.002		0			0	0	0						1		9.05E-05	1.26E-05	4.52E-05										
453	1	1.12E-05	0	0	INF		ENSG00000137462	TLR2				gi\19718734\ref\NP	toll-like receptor 2 [Homo sap	784	89838	6.6	1	(588-610i	S	19	0.936		0	8.93E-05		0	0	0						1	2.23E-05	4.46E-05									TIR domain. The	cell surface [pmid 12443841];	Gram-positive bacterial
454	1	1.1E-05	0	0	INF		ENSG00000166189	PRK2				gi\7164854\ref\NP_0	nascin-related kinase 2 [Ho	508	58441	8.8	1	(487-509i	Q	0	0		0			0	0	0						1		8.83E-05	1.21E-05	4.42E-05								Serine/threonine protein	integral to membrane;	ATP binding; nucleotide
455	1	1.02E-05	0	0	INF		ENSG00000100385	ILRB				gi\4504665\ref\NP_0	interleukin 2 receptor beta pr	551	61117	5.1	2	(o10-32o4	S	27	1		0			0	0	0						1		8.14E-05	1.04E-05	4.07E-05								Fibronectin type 3 domain;	external side of plasma	hematopoietin/interferon-
456	1	9.62E-06	0	0	INF		ENSG00000169855	ILTR				gi\28610151\ref\NP	Interleukin 7 receptor precurs	459	51579	5.4	1	(241-263i	S	21	0.979		0		7.7E-05	0								1	1.92E-05	3.85E-05									Fibronectin type III domain;	integral to membrane;	antigen binding [pmid
457	1	9.59E-06	0	0	INF		ENSG00000153283	CD96				gi\8683834\ref\NP	CD96 antigen isoform 1 prec	585	65634	7.1	1	(o518-540i	Q	22	0.009		0			0	0	0						1		7.67E-05	1.92E-05	3.84E-05								Immunoglobulin V-set	integral to plasma membrane	
458	1	9.12E-06	0	0	INF		ENSG00000125999	C20orf114				gi\40807482\ref\NP	LPLUNC1 protein precursor [	484	52442	7.2	1	(7-29o	S	22	0.997		0		7.3E-05	0								1	1.82E-05	3.65E-05									BPI/LBP/CETP N-terminal		lipid binding
459	1	8.31E-06	0	0	INF		ENSG00000133392	DNAJC14				gi\19943066\ref\NP	dnaJ homologue subfamily c	702	78569	8.1	2	(208-320i	Q	32	0.001		0	6.65E-05		0								1	1.66E-05	3.32E-05											
460	1	8.02E-06	0	0	INF		ENSG00000091409	ITGA6				gi\11939574\ref\NP	integrin alpha chain, alpha 6	1091	122053	6.8	1	(o1015-103	S	24	0.999		0	6.41E-05		0								1	1.6E-05	3.21E-05											
461	1	7.64E-06	0	0	INF		ENSG00000084234	APLP2				gi\4502147\ref\NP_0	amyloid beta (A4) precursor-	763	86956	4.8	2	(13-35o69i	S	32			0	6.11E-05		0								1	1.53E-05	3.06E-05									BPTI/Kunitz family of serine	integral to membrane [pmid	binding; DNA binding [pmid
462	1	7.17E-06	0	0	INF		ENSG00000157404	SPAST				gi\18872\ref\NP_0	spastin isoform 1 [Homo sap	616	67197	9.6	1	(67-79o	Q	39	0.002		0		5.74E-05	0								1	1.43E-05	2.87E-05									Magnesium chelatase,	nucleus [pmid 15610178]	ATP binding; nucleoside-
463	1	5.72E-06	0	0	INF		ENSG00000203710	CR1				gi\8679303\ref\NP	complement receptor 1 isofo	2039	223675	6.9	1	(o1974-199	S	42	0.979		0	4.58E-05		0								1	1.14E-05	2.29E-05									Domain abundant in	integral to plasma membrane	complement component C3b
464	1	5.6E-06	0	0	INF		ENSG00000136436	BLRCH1				gi\33859670\ref\NP	leucine rich repeats and calp	728	80685	5.9	1	(o704-726i	Q	41	0.345		0			0								1		4.48E-05	1.8E-05	2.24E-05								leucine-rich repeats		sugar porter activity;
465	1	4.88E-06	0	0	INF		ENSG00000196547	MAN2A2				gi\5147716\ref\NP	mannosidase, alpha, class 2	1150	130538	6.8	1	(7-29o	A	22	0.148		0			0	3.9E-05							1	9.75E-06	1.95E-05									Alpha mannosidase, middle	Golgi membrane; integral to	alpha-mannosidase activity
466	1	4.75E-06	0	0	INF		ENSG00000159363	ATP13A2				gi\13435129\ref\NP	ATPase type 13A2 [Homo sa	1180	128793	8.1	11	(o45-67i23-	Q	18	0.008		0			0	3.8E-05							1	9.51E-06	1.9E-05									haloacid dehalogenase-like	endoplasmic reticulum;	ATP binding; ATPase
467	1	4.59E-06	0	0	INF		ENSG00000143515	ATP8B2				gi\40316\ref\NP_0	ATPase, class I, type 8B, mem	1223	138719	8.9	10	(o102-124i	Q	26	0.389		0			0	3.67E-05							1	9.17E-06	1.83E-05									Cation transport ATPase	integral to membrane;	ATP binding; ATPase
468	1	4.47E-06	0	0	INF		ENSG00000111670	GNPTAB				gi\38202211\ref\NP	N-acetylglucosamine-1-phos	1256	143621	7.2	1	(20-42o12-	A	35	0.088		0			0	3.57E-05							1	8.93E-06	1.79E-05									Domain found in Notch and	integral to membrane;	calcium ion binding;
469	1	4.06E-06	0

rk	NEs detected # out of 10 runs	NEs dNSAF_A VG	MMs detected # out of 8 runs	MMs dNSAF_A VG	NEs:MMs	Detected in Mitochondria	ORTHO_GROUP	GENE_NAME	NET_NAME	Location & Gene Expression Data	Locus	Description	Length	MW	pI	PredHel	TMHMM_Topology	SIGNALP _HMM_P OS	SIGNALP _HMM_S PROB	RESTING LYMPHOCYTES NEs HsNoOH-NE_NT_lymphocytes_ChRB_T1_1_dNSAF	HsNoOH-NE_NT_lymphocytes_T1_1_dNSAF	HsNoOH-NE_NT_lymphocytes_PK_1_dNSAF	HsSD-NE_NT_lymphocytes_T1_1_dNSAF	HsSD-NE_NT_lymphocytes_PK_1_dNSAF	NT-dNEs Detected # Out of 5	NT-dNEs AVG	NT-dNEs SDV	PHA-TREATED LYMPHOCYTES NEs HsNoOH-NE_PHA_lymphocytes_ChRB_T1_1_dNSAF	HsNoOH-NE_PHA_lymphocytes_T1_1_dNSAF	HsSD-NE_PHA_lymphocytes_ChRB_T1_1_dNSAF	HsSD-NE_PHA_lymphocytes_T1_1_dNSAF	PHA-dNEs Detected # Out of 5	PHA-dNEs AVG	PHA-dNEs SDV	MMs MmNoOH-MM_liver_ChRbTi_1_dNSAF	MmNoOH-MM_liver_ChRbTi_2_dNSAF	RnNoOH-MM_liver_Ti_1_dNSAF	RnNoOH-MM_liver_Ti_2_dNSAF	RnNoOH-MM_liver_Ti_3_dNSAF	RnNoOH-MM_liver_Ti_4_dNSAF	RnNoOH-MM_liver_PK_1_dNSAF	RnNoOH-MM_liver_PK_2_dNSAF	Region_Note	GO_Component	GO_Function
540	7	0.001762	0	0	NF		ENSG00000198618	PPIA			gi\10863927\ref\NP_	peptidyprolyl isomerase A [H	165	18012	7.8	0	G	15	0.001	0.002948	0.001555	0	0.003428	0	4	0.001982	0.001542	0	0.004748	0.000485	0	0.002652	0	0	0	0	0	0	0	0	0	Helicase superfamily c-		isomerase activity; peptide
541	7	0.00171	3	8.69E-05	19.68235		ENSG00000161960	EIF4A1			gi\5039529\ref\NP_	eukaryotic translation initi	406	46154	5.5	0	G	0	0.001598	0.002052	0	0.000557	0	3	0.001052	0.00094	0.002187	0.000737	0	0.000965	0.005586	4	0.002388	0.002237	0	0.000114	0.000107	0.000474	0	0	0	0	0	Helicase superfamily c-		
542	7	0.001412	2	2.55E-05	54.54841		ENSG00000205620	HSP90AA1			gi\13375939\ref\NP_	heat shock protein 90kDa alp	854	98161	4.9	0	G	0	0.00057	0.000668	0	0.002293	0	3	0.000862	0.000777	0.000829	0.000966	0	0.001055	0.000526	4	0.001938	0.002009	0	0	0	0	0	0	0	0	Fibrillarin; pfam01269	nucleus; ribonucleoprotein	methyltransferase activity;
543	7	0.001345	0	0	NF		ENSG00000105202	FBL			gi\12064650\ref\NP_	fibrillarin [Homo sapiens]	321	33784	10.2	0	G	20	0.00101	0.001535	0.002341	0.001156	0	3	0.001635	0.000653	0	0.000763	0.001076	0	0.00129	0.00091	0	0	0	0	0	0	0	0	Trypsin-like serine	azurophil granule [pmid	heparin binding [pmid
545	7	0.001334	2	7.23E-05	18.44439		ENSG00000135046	ANXA1			gi\4502101\ref\NP_	annexin I [Homo sapiens]	346	38714	7	0	G	20	0.00375	0.002421	0.001908	0.000562	0	3	0.00209	0.00138	0	0.00098	0	3	0.000713	0.00054	0	0.000317	0	0	0	0	0	0	Annexin. This family of	cornified envelope [pmid	calcium ion binding [pmid
546	7	0.001325	0	0	NF		ENSG00000136167	LCP1			gi\4504965\ref\NP_	L-plastin [Homo sapiens]	627	70289	5.3	0	G	0	0.002328	0.000893	0	0.00231	0	3	0.001383	0.001141	0.00354	0.000501	0	0.000234	0.000796	3	0.001268	0.001532	0	0	0	0	0	0	0	0	EF-hand, calcium binding	cytoplasm [pmid 2378651];	actin binding [pmid
547	7	0.001252	0	0	NF		ENSG00000197785	ATAD3A			gi\4267062\ref\NP_	ATPase family, AAA domain	634	71357	9	0	G	16	0	0.002302	0.001246	0.000869	5.57E-05	0	4	0.001123	0.000931	0.003501	0.001762	0	0	0.00138	0.001613	0	0	0	0	0	0	0	0	ATPase family associated		ATP binding; nucleoside-
548	7	0.00113	0	0	NF		ENSG00000145779	TNFAIP8			gi\11767636\ref\NP_	tumor necrosis factor, alpha-	198	23003	7.9	0	G	0	0.001638	0.00158	0.004744	0.000892	0	4	0.001848	0.002028	0	0.00268	0.000577	0	0.000388	0	0	0	0	0	0	0	0	0	Peroxiredoxin (PRX) family,	cytosol [pmid 9497358];	hydrolase activity;
549	7	0.00107	4	0.000147	7.296393		ENSG00000117592	PRDX6			gi\4505671\ref\NP_	phospholipase A2, group VI	224	25035	6.4	0	G	17	0.007	0.000724	0.001145	0.000839	0.000631	0	4	0.000835	0.000224	0	0.001302	0	0.00306	0.000857	3	0.001305	0.001289	0	0.000413	0.000405	0	0.00021	0.000145	0	0	Ribosomal protein S7e;	cytosolic small ribosomal	protein binding [pmid
550	7	0.000978	0	0	NF		ENSG00000115053	NCL			gi\5595678\ref\NP_	nucleolin [Homo sapiens]	710	76615	4.7	0	G	0	0	0.000636	0.001496	0	0.001184	0	3	0.000331	0.000288	0.000625	0.000822	0	0.000436	0.000324	4	0.001552	0.001934	0	0	0	0	0	0	0	0	Ribosomal protein RNA	nucleolus [pmid 2394707];	DNA binding; nucleotide
552	7	0.000935	0	0	NF		ENSG00000214078	CPNE1			gi\23997708\ref\NP_	copine I [Homo sapiens]	537	59059	5.8	0	G	15	0.081	0.000906	0.00013	0	0.000395	0	3	0.000358	0.000401	0.003306	0.000209	0	3.04E-05	0.002502	4	0.001512	0.001642	0	0	0	0	0	0	0	0	YWA Copine: Copines are		calcium-dependent
553	7	0.000925	2	6.92E-05	10.35397		ENSG00000161228	RAB8B			gi\7706342\ref\NP_	RAB8B, member RAS oncog	207	23589	9.1	0	G	21	0.022	0.001567	0.000223	0.000271	0.000171	3	0.000497	0.000274	0.004285	0.000325	0	7.88E-05	0.000742	4	0.001359	0.001972	0	0.000439	0.000115	0	0	0	0	0	0	Rab8/Sec4/Ypt2.	intracellular; membrane	ATP binding; GTP binding;
554	7	0.000903	0	0	NF		ENSG00000130985	UBE1			gi\3510340\ref\NP_	ubiquitin-activating enzyme E	1058	117849	5.8	0	G	36	0.001	0.002146	0.000551	0	0.001102	3	0.00095	0.000916	0.001259	0.000191	0	0.000524	0.001451	4	0.000858	0.000597	0	0	0	0	0	0	0	0	Ubiquitin activating enzyme		ATP binding; catalytic
555	7	0.000833	0	0	NF		ENSG00000188229	ACTN1			gi\4501899\ref\NP_	actinin, alpha 1 [Homo sapie	892	103554	5.4	0	G	21	0.001	0.002268	0.000313	0	0.002028	3	0.000976	0.001611	0.002488	5.03E-05	0	0.00161	4.3E-05	4	0.00061	0.0012	0	0	0	0	0	0	0	0	Spectrin repeats, found in	cytoskeleton; focal adhesion	actin binding; calcium ion
556	7	0.000809	0	0	NF		ENSG00000071127	WDR1			gi\9257257\ref\NP_	WD repeat-containing protei	629	67149	6.7	0	G	21	0.001	0.002268	0.000262	0.00063	0.001661	3	0.00083	0.00062	0	0.000478	0.00019	3	0.000787	0.001144	0	0	0	0	0	0	0	0	WD40 domain, found in a	cytoskeleton	actin binding; protein binding
557	7	0.000732	0	0	NF		ENSG00000212860	HSPA1A			gi\4885431\ref\NP_	heat shock 70kDa protein 1B	641	70025	5.6	0	G	17	0.049	0.000253	3.64E-05	0.001465	0.001399	4	0.000789	0.000749	0	0.00049	0.001553	0.000659	3	0.000675	0.000648	0	0	0	0	0	0	0	0	Hsp70 protein. Hsp70	cytoplasm [pmid 16130169];	ATP binding; chaperone
558	7	0.000705	0	0	NF		ENSG00000110042	EIF4D1			gi\32040932\ref\NP_	eukaryotic translation initiati	534	60927	9.4	0	G	31	0.001	0.001215	0.000552	0.001402	0.000811	3	0.000565	0.000423	0	0.000764	0.000447	3	0.000603	0.000329	0	0	0	0	0	0	0	0	Eps15 homology domain;		ATP binding; calcium ion
559	7	0.000629	0	0	NF		ENSG00000136286	MYO1G			gi\54873627\ref\NP_	myosin IG [Homo sapiens]	1018	116440	8.8	0	G	0	0	0.000637	0.001511	0.000185	0.000729	0	4	0.000765	0.000551	0	0.000793	0	0.000497	0.000679	3	0.000492	0.00035	0	0	0	0	0	0	0	Myosin motor domain, type	myosin	ATP binding; motor activity
560	7	0.000619	0	0	NF		ENSG00000197111	PCBP2			gi\14141166\ref\NP_	poly(rC)-binding protein 2 isc	363	38222	6.8	0	G	23	0.021	0.001792	0.000193	0.000519	0.000683	3	0.000797	0.000694	0	0.000699	0	0.001168	0.000209	4	0.000441	0.0006	0	0	0	0	0	0	0	0	K homology RNA-binding	cytoplasm; nucleus;	DNA binding; nucleic acid
561	7	0.000563	0	0	NF		ENSG00000140105	IFRS			gi\4741169\ref\NP_	tyrosyl-tRNA synthetase	471	53165	6.2	0	G	21	0.026	0.000689	0.000224	0.000638	0.000363	3	0.000485	0.000278	0.001885	0.000478	3	4.6E-05	0.000734	4	0.000573	0.000485	0	0	0	0	0	0	0	0	Tryptophanyl-RNA	cytoplasm [pmid 16130169];	ATP binding; ligase activity;
562	7	0.000542	0	0	NF		ENSG00000123136	DDX39			gi\21040371\ref\NP_	DEAD (Asp-Glu-Ala-Asp) box	427	49130	5.7	0	G	0	0.001139	0.000901	0	8.27E-05	0	3	0.000531	0.000574	0.00104	0.000263	0	4.37E-05	0.000863	3	0.000552	0.000475	0	0	0	0	0	0	0	0	Helicase superfamily c-	nucleus [pmid 15047853]	ATP binding; ATP-dependent
563	7	0.000533	0	0	NF		ENSG00000099783	HNRPH1			gi\14141152\ref\NP_	heterogeneous nuclear ribon	730	71516	8.8	0	G	14	0	0.000222	0.000263	0.000257	0.000823	0	4	0.000544	0.000245	0	0.000645	0	0.000336	0.000566	3	0.000525	0.00487	0	0	0	0	0	0	0	0	N-acetylglucosamine-		nucleotide binding; RNA
564	7	0.000533	0	0	NF		ENSG00000108424	KPNB1			gi\19923142\ref\NP_	karyopherin beta 1 [Homo sa	876	97170	4.8	0	G	46	0	0.00037	0.00346	0	0.000807	0	3	0.000381	0.00033	0.000403	0.000133	0	0.000333	0.000304	4	0.000685	0.000354	0	0	0	0	0	0	0	0	Karyopherin (importin) beta	cytoplasm [pmid 7615630];	nuclear localization
565	7	0.000477	0	0	NF		ENSG00000182718	ANXA2P3			gi\50845386\ref\NP_	annexin A2 isoform 2 [Homo	339	38604	7.8	0	G	19	0.001	0.000478	0.000826	0.001108	0.000489	0	4	0.00072	0.000307	0	0.000662	0	4.81E-05	0.000226	3	0.000234	0.000301	0	0	0	0	0	0	0	0	Annexin. This family of	plasma membrane [pmid	calcium ion binding; calcium-
566	7	0.00046	2	5.41E-06	84.9245		ENSG00000149180	CSN			gi\38044288\ref\NP_	peptidyl-prolyl cis/trans isom	731	83641	5.8	0	G	0	0.000656	0.000128	0.001799	0.000314	0.000134	3	0.000258	0.000166	0.000268	0.000128	0	0.000172	0.000153	3	0.000193	0.00295	0	2.33E-05	0	2.01E-05	0	0	0	0	Gelsolin homology domain;	actin cytoskeleton [pmid	actin binding; calcium ion
567	7	0.000449	0	0	NF		ENSG00000115085	EZAP70			gi\31455611\ref\NP_	zeta-chain associated protein	619	69872	7.7	0	G	21	0.211	0	0.000829	0.000304	0.000457	3	0.000397	0.000345	0.000717	0.000616	0	0.000422	0.000248	4	0.000501	0.000208	0	0	0	0	0	0	0	0	Serine/Threonine protein	cytoplasm [pmid 12359715];	ATP binding; [pmid 1423621];
568	7	0.000447	0	0	NF		ENSG00000196924	FLNA			gi\12965351\ref\NP_	actinfilamin [Homo sapiens]	2647	280451	5.7	0	G	15	0	0.000594	0.000550	0	0.000794	0.000555	3	0.000312	0.000255	0.000813	0.000604	0	0.000282	0.000248	4	0.000502	0.00032	0	0	0	0	0	0	0	0	WD40 domain, found in a	nuclear pore [pmid 12730363]	
569	7	0.000427	0	0	NF		ENSG00000092929	UNC13D			gi\49167655\ref\NP_	unc-13 homolog D [Homo sa	1090	123282	6.7	0	G	19	0.001637	0.000727	0.000345	0.000146	0	4	0.000592	0.000698	0.000814	0.000144	0	0.000592	0.000257	3	0.000257	0.000376	0	0	0	0	0	0	0	0	Domain of Unknown		
570	7	0.000404	0	0	NF		ENSG00000140575	IQGAP1			gi\4506787\ref\NP_	IQ motif containing GTPase,	1657	189251	6.5	0	G	19	0	0.000196	0.00038	0.000227	0.000885	0	4	0.000422	0.000319	0	0.000284	0	0.001054	0.000209	3	0.000387	0.000461	0	0	0	0	0	0	0	0	actin filament [pmid 8670801];	calmodulin binding [pmid	nucleotide binding;
571	7	0.000377	0	0	NF		ENSG00000198700	NUP107			gi\5485922\ref\NP_	nucleoporin 160kDa [Homo s	1436	162121	5.5	0	G	18	0.029	0	0.000471	0.000916	0.001483	0	4	0.000404	0.000415	0.000300	0.000475	0	0.000205	0.000745	3	0.000255	0.000545	0	0	0	0	0	0	0	0	Polyphosphate kinase	nuclear pore [pmid 11564755]	kinase activity;
572	7	0.000345	1	3.18E-06	108.457		ENSG00000142168	CAPN1			gi\12408656\ref\NP_	calpain 1, large subunit [Hom	714	81890	5.7	0	G	17	0.012	0.000454	0.000359	0.000789	0.000396	0	4	0.0005	0.000197	0	3.14E-05	0	0.000137	0.000591	3	0.00019	0.000274	0	2.54E-05	0	0	0	0	0	0	Calpains, domains IIa, IIb;	intracellular	calcium ion binding; calpain
573	7	0.000337	0	0	NF		ENSG00000079928	ARHGEF1			gi\15011972\ref\NP_	Rho guanine nucleotide exch	917	102435	5.7	0	G	27	0.001	0.000356	0.000435	0.000209	0.000192	3	4	0.000322	9.71E-05	0	0.000221	0	0.000179	0.00101	3	0.000353	0.000449	0	0	0	0	0	0	0	0	Guanine nucleotide	cytoplasm [pmid 10747909];	GTPase activator activity;
574	7	0.000329	0	0	NF		ENSG00000184220	RHN1			gi\33354\ref\NP_	Ras homolog gene family, m	1100	121627	5.7	0	G	16	0	0.000295	0.000275	0.000342	0.000323	0	4	0.000298	0.000381	0.000397	0.000258	0	0.000398	0.000371	3	0.000258	0.000259	0	0	0	0	0	0	0	0	Diaphanous GTPase-.		ATP binding; Rho GTPase
575	7	0.000304	0	0	NF		ENSG00000113013	HSPA9			gi\24234688\ref\NP_	heat shock 70kDa protein 9 p	679	73681	6.2	0	S	25	0.825	0.000239	0.000275	0	0.00065	0	4	0.000291	0.000269	0	9.91E-05	0	0.001058	0.000113	3	0.000317	0.000496	0	0	0	0	0	0	0	0	molecular chaperone DnaK	cell surface [pmid 12493373];	ATP binding; nucleotide
576	7	0.000301	0	0	NF		ENSG00000165501	NUP205			gi\57634354\ref\NP_	nucleoporin 205kDa [Homo s	2012	227918	6.2	0	G	16	0.005	0.000242	0.000224	0	0.000114	0	3	0.000182	0.00016	0.000441	0.000357	0	0.000182	0.000316	3	0.00042	0.000329	0	0	0	0	0	0	0	0	nuclear pore [pmid 9346540];		ATP binding;
577	7	0.00025	0	0	NF		ENSG00000111335	OAS2			gi\7422907\ref\NP_	2'-5'-oligoadenylate syntheta	687	78787	8	0	G	18	0	0	0.000073	0	7.71E-05	0	3	0.000113	0.000178	0	7.13E-05	0.000894	3	0.000388	0.000427	0	0	0	0	0	0	0	0	membrane [pmid 2440675];		ATP binding;
578	7	0.000247	2	1.43E-05	17.26184		ENSG00000168610	STAT3			gi\21618340\ref\NP_	signal transducer and activat	770	88068	6.3	0	G	0	0.000211	0.000394	0.000244	0.00039	0	3	0.00031	9.6E-05	0	0.000291	0	0.000148	0.000299	3	0.000185	0.000141	0	0	0.42E-05	0	2.03E-05	0	0	0	STAT protein, DNA binding	cytoplasm [pmid 7512451];	calcium ion binding;
579	7	0.000208	0	0	NF		ENSG00000115415	STAT1			gi\47834348\ref\NP_	signal transducer and activat	1136	124614	6.1	0	G	22	0	0.000408	3.71E-05	0.000195	0.000109	0	3	0.000168	0.000158	0.000781	0	0	2.87E-05	8.78E-05	3	0.000177	0.000379	0	0	0	0	0	0	0	0	RhoGAP_PARG1; RhoGAP	cytoplasm [pmid 9349540];	
580	7	0.00019	0	0	NF		ENSG00000137801	ETHB51			gi\40317626\ref\NP_	thrombospondin 1 precursor	1170	129383	4.9	0	S	19	0.994	0.000277	0.000319	0.000161	0.000196	3	4	0.000238	7.26E-05	0.000379	0.000173	0	1.39E-05	0	3	0.000141	0.000177	0	0	0	0	0	0	0	0	Thrombospondin C-terminal	extracellular region [pmid	calcium ion binding;
581	7	0.000188	0	0	NF		ENSG00000077150	NFKB2			gi\17320531\ref\NP_	nuclear factor of kappa light	900	96749	6.2	0	G	0	0	0.00038	0.000104	0	0.000157	0	3	0.000155	0.000151	0.000493	0.000199	0	1.81E-05	0.000171	4	0.00022	0.000199	0	0	0	0	0	0	0	0			
582	7	0.000186	0	0	NF		ENSG00000132965	EC1			gi\13220808\ref\NP_	Ubiquitin 1 (UBI1) [Homo sa	4625	51910	5.8	0	G	0	0	0.000251	0.000187	0	0.000041	0	4	0.000173	0.000178	0.000127	0.000078	0	7.57E-05	0.000145	3	0.000177	7.87E-05	0	0	0	0	0	0	0	0	Spectrin repeats, found in	cytoskeleton; intermediate	actin binding; structural
583	7	0.000147	2	1.38E-05	10.61619		ENSG00000170248	PDCD6IP			gi\22027538\ref\NP_	programmed cell death 6 inte	698	96023	6.5	0	G	19	0.000187	2.69E-05	0.000433	0.000285	0	4	0.000233	0.000171	0	5.17E-05	0	5.64E-05	0.000113	3	6.02E-05	5.47E-05	0	2.08E-05	0	8.96E-05	0	0	0	0	0	Ly-49 inhibe protein, N-		signal transducer activity
584	7	0.000147	0	0	NF		ENSG00000108602	HK3			gi\4504595\ref\NP_	hexokinase 3 [Homo sapiens]	923	102551	6.4	0	G	18	0	0.000176	0.000152	0	3.78E-05	0	3	0.000176	0.000175	0.000481	0.000176	0	1.77E-05	0.000158	3	0.000158	0.000292	0	0	0	0	0	0	0	0	Hexokinase. Hexokinase	membrane	ATP binding; hexokinase
585	7	0.000426	0	0	NF		ENSG00000172757	CFL1			gi\5031635\ref\NP_	cofilin 1 (non-muscle) [Homo	166	18502	8.1	0	G	0	0	0.00394	0	0.016803	0.000355	3	3	0.005184	0.007965	0	0.003919	0	0.040112	0.010638	3	0.013667	0.018169	0	0	0	0	0	0	0	0	Actin depolymerisation	cytoplasm [pmid 16130169];	actin binding; protein binding
586	6	0.004728	0	0	NF		ENSG00000118680	MRLC2			gi\15809016\ref\NP_	myosin regulatory light chain	172	19779	4.8	0	G	30	0	0	0.001122	0.002185	0.015032	3	3	0.004677	0.00714	0	0.002261	0	0.018407	0.00446	3	0.004779	0.00988	0	0	0	0	0	0	0	0	EF-hand, calcium binding		calcium ion binding
587	6	0.003229	0	0	NF		ENSG00000184220	RHN1			gi\4503271\ref\NP_	Ras homolog gene family, m	434	47769	7.4	0	G	42	0	0	0.000297	0	0.000529	0	3	0.000514	0.000591	0	0.000549	0	0.016777	0.001327	3	0.000583	0.000822	0	0	0	0	0	0	0	0	Enolase: Enolases are	cytoplasm [pmid 11256614];	DNA binding; lyase activity;
588	6	0.002952	4	0.000165	17.91427		ENSG00000143761	ARF1			gi\6879664\ref\NP_	ADP-ribosylation factor 1 [Ho	181	20697	6.8	0	G	30	0	0.001792	0.002593	0	0.00527	0	3	0.002414	0.002191	0	0.003426	0	0.008797	0.001739	3	0.003491	0.003804	0	0	0	0	0	0	0	0	Arf1-Arf5-like subfamily.	intracellular; plasma	GTP binding; GTPase
589	6	0.001965	0	0	NF		ENSG00000174748	RASSF1C			gi\13936146\ref\NP_	RASSF1C, member RAS onco	216	23458	8.4	0	G	34	0.021	0.002252	0.001836	0	8.18E-05	0	3	0.000242	0.000148	0.010275	0.000562	0	0.000242	0.001168	3	0.000242	0.000148	0	0	0	0	0	0	0	0	Rab5-related subfamily.		GTP binding; GTPase
590	6	0.00183	0	0	NF		ENSG00000166913	YWHAB			gi\2132844\ref\NP_	14-3-3 zeta [Homo sapiens]	246	28082	4.8	0	G	0	0	0	0.001676	0	0.000508	0	3	0.001131	0.001655	0	0.007733	0	0.004047	0.004336	3	0.002529	0.002049	0	0	0	0	0	0	0	0	14-3-3 protein; pfam00244	cytoplasm [pmid 12963375];	phosphoryl group binding;
591	6	0.001722	3	6.68E-05	25.77178		NA ENSMUSG00000	ARPC4			gi\5031595\ref\NP_	actin related protein 2/3 com	168	19667	8.4	0	S	22	0.568	0	0.000139	0.001118	0.002313	0	3	0.000693	0.00107	0	0.001469	0	0.005537	0.001199	3	0.002551	0.002382	0	0	0	0	0	0	0	0	ARP2/3 complex 20 kDa		actin filament binding [pmid
592	6	0.001704	0	0	NF		ENSG00000165501	NUP205			gi\57634354\ref\NP_	nucleoporin 205kDa [Homo s	2012	227918	6.2	0	G	16	0.005	0.000242	0.000224	0	0.000114	0	3	0.000182	0.00016	0.000441	0.000357	0	0.000182	0.000316	3	0.00042	0.000329	0	0	0	0	0	0	0	0	nuclear pore [pmid 9346540];	cytoplasm; intracellular;	
593	6	0.001695	0	0	NF		ENSG00000110484	HNRNPL			gi\5263238\ref\NP_	heterogeneous nuclear ribon	589	64133	8.2	0	G	46	0.001	0	0.000713	0.000319	0.000147	0	3	0.000625	0.000634	0	0.000099	0	0.006872	0.003194	3	0.002764	0.003046	0	0	0	0	0	0	0	0	RNA recognition motif;	membrane [pmid 2440675];	
594	6	0.001658	0	0	NF		ENSG00000092199	HNRNPC			gi\11790254\ref\NP_	heterogeneous nuclear ribon	293	32338	5.1	0	G	36	0	0	0.000876	0.002565	0.002945	0	3	0.001596	0.001394	0	0.000959	0	0.005957	0	3	0.001719	0.002858	0	0	0	0	0	0	0	0			
595	6	0.001452	0	0	NF		ENSG00000143816	CLIC1			gi\4275129\ref\NP_	chloride intracellular channel	241	26923	8.2	0	G	19	0	0	0.000484	0.006237	0.001759	0	3	0.001256	0.000843	0	0.000659	0	0.001279	0.001363	3	0.001177	0.00063	0	0	0	0	0	0	0	0	GST_C family, Chloride	brush border [pmid	chloride ion binding; protein
596	6	0.001358	1	4.07E-05	33.3419		ENSG00000163466	ARPC2			gi\2323821\ref\NP_	actin related protein 2/3 com	300	34333	7.3	0	G	17	0	0	0.000622	0.000628	0.002826	0	3	0.001019	0.00124	0	0.000823	0	0.003917	0.002047	3	0.001697	0.001702	0	0.000326	0	0	0	0	0	0	Arp2/3 complex, 34 kD	Arp2/3 complex [pmid	structural constituent of
597	6	0.001192	0	0	NF		ENSG00000171443	HNRPA3			gi\24765\ref\NP_	heterogeneous nuclear ribon	378	39522	9.1	0	G	0	0	0	0.000864	0.000784	0.001542	0	3	0.000851	0.000638	0	0.00089	0	0.004201	0.001016	3	0.001534	0.002866	0	0	0	0	0	0	0	0	RNA recognition motif.	nucleus; ribonucleoprotein	nucleotide binding; RNA
598	6	0.001185	0	0	NF		ENSG00000079246	EXRCC5		

rk	NEs detected # out of 10 runs	NEs dNSAF_A VG	MMs detected # out of 8 runs	MMs dNSAF_A VG	NEs:MMs	Detected in Mitochondria	ORTHO_GROUP	GENE_NAME	NET_NAME	Location & Gene Expression Data	Locus	Description	Length	MW	pI	PredHel	TMHMM_Topology	SIGNALP_HMM_TYPE (S=signal; A= Anchor; Q= none)	SIGNALP_HMM_POS	SIGNALP_HMM_PROB
687	5	0.001172	0	0	NF		ENSG00000103187	CCTL1			gi|52164607|ref|NP_	coactosin-like 1 [Homo sapie	142	15945	5.7	0	o	Q	0	0
688	5	0.001159	1	1.05E-05	110.444		ENSG00000133241	FRAN			gi|54535595|ref|NP_	pias-related nuclear protein [	236	24423	7.5	0	o	Q	23	0.004
689	5	0.001055	0	0	NF		ENSG00000100402	RPS10			gi|45965679|ref|NP_	ribosomal protein S10 [Homo	167	18898	10.2	0	o	Q	24	0.001
690	5	0.001048	6	0.00012	8.761176		ENSG00000035403	VCL			gi|4507877|ref|NP_00	vinculin isoform VCL [Homo	1066	116722	8.1	0	o	Q	0	0.006237
691	5	0.001008	0	0	NF		ENSG00000143401	ANP32E			gi|13569879|ref|NP_0	acidic (leucine-rich) nuclear p	268	30692	3.8	0	o	Q	0	0
692	5	0.000885	0	0	NF		ENSG00000100448	CTSG			gi|4503149|ref|NP_00	cathepsin G [Homo sapiens]	255	28837	11.2	0	s	Q	19	1
693	5	0.000869	0	0	NF		ENSG00000111229	ARPC3			gi|5031597|ref|NP_0	actin related protein 2/3 com	178	20547	8.6	0	o	Q	27	0.001
694	5	0.000841	0	0	NF		ENSG00000214754	SFRS2			gi|4727144|ref|NP_00	splicing factor, arginine/serin	221	25476	11.9	0	o	Q	0	0
695	5	0.000808	4	0.000121	6.680291		ENSG00000114779	ABHD14B			gi|14248382|ref|NP_0	dehydrolase domain containi	210	22346	9.4	0	o	Q	27	0.002
696	5	0.000804	0	0	NF		ENSG00000100028	SNRPD3			gi|4759160|ref|NP_0	small nuclear ribonucleoprote	126	13916	10.3	0	o	Q	16	0.015
697	5	0.000766	0	0	NF		ENSG00000182158	ESR			gi|10834990|ref|NP_0	autoantigen La [Homo sapien	408	46837	7.5	0	o	Q	0	0
698	5	0.000765	2	3.52E-05	21.71852		ENSG00000004059	ARF5			gi|4502209|ref|NP_0	ADP-ribosylation factor 5 [Ho	180	20530	6.8	0	o	Q	15	0.054
699	5	0.000762	0	0	NF		ENSG00000182754	RPL9P7			gi|7944630|ref|NP_0	ribosomal protein L9 [Homo s	192	21863	10	0	o	Q	0	0
700	5	0.000675	3	0.000107	6.308424		ENSG00000147753	ACLY			gi|24307755|ref|NP_0	ATP citrate synthase [Homo sa	541	69671	5.6	0	o	Q	16	0
701	5	0.000624	0	0	NF		ENSG00000155366	RHOC			gi|11149425|ref|NP_0	ras homolog gene family, me	193	22006	6.6	0	o	Q	23	0.009
702	5	0.000521	0	0	NF		ENSG00000185686	RPS23			gi|45967219|ref|NP_0	ribosomal protein S23 [Homo	143	15408	10.5	0	o	Q	48	0
703	5	0.000494	0	0	NF		ENSG00000108823	APEX1			gi|13375005|ref|NP_0	APEX nuclease [Homo sapiens	318	35554	8.1	0	o	Q	0	0
704	5	0.000489	0	0	NF		ENSG00000101361	NOL5A			gi|32483374|ref|NP_0	nucleolar protein 5A [Homo s	594	66050	9.2	0	o	Q	19	0.067
705	5	0.000482	2	4.5E-05	10.69788		ENSG00000164758	ECH1			gi|9110515|ref|NP_0	CH-containing precursor [Ho	375	40079	8.2	0	o	Q	20	0.002162
706	5	0.000479	1	1.55E-05	30.82888		ENSG00000169567	HINT1			gi|4885413|ref|NP_0	histidine triad nucleotide bind	126	13802	7	0	o	Q	0	0
707	5	0.000466	0	0	NF		ENSG00000166197	NOLC1			gi|14896994|ref|NP_0	nucleolar and coiled-body ph	699	73603	9.5	0	o	Q	28	0.001
708	5	0.000462	1	1E-05	40.01303		ENSG00000171862	EIF3J			gi|34147109|ref|NP_0	Tu translation elongation fact	455	49875	7.6	0	o	Q	39	0.913
709	5	0.000443	2	8.17E-05	5.425807		ENSG00000125741	OPA3			gi|13376717|ref|NP_0	OPA3 protein isoform b [Hom	179	19996	8.9	0	o	Q	19	0.004
710	5	0.000442	2	1.64E-05	26.99778		ENSG00000166825	CCT2			gi|5453603|ref|NP_0	chaperonin containing TCP1	542	57458	6.6	0	o	Q	17	0.092
711	5	0.000424	0	0	NF		ENSG00000063177	RPL18			gi|4506607|ref|NP_0	ribosomal protein L18 [Homo	188	21634	11.7	0	o	Q	0	0
712	5	0.000407	3	5.84E-05	6.956397		ENSG00000122545	SEPT7			gi|14835233|ref|NP_0	cell division cycle 10 isoform	436	50581	8.6	0	o	Q	18	0
713	5	0.000386	0	0	NF		ENSG00000063244	U2AF2			gi|6005926|ref|NP_0	U2 (RNU2) small nuclear RN	475	53501	9.1	0	o	Q	0	0
714	5	0.000388	0	0	NF		ENSG00000138069	RAB1A			gi|4758988|ref|NP_0	RAB1A, member RAS oncog	205	22678	6.2	0	o	Q	24	0.002
715	5	0.000384	1	2.01E-05	19.17398		ENSG00000156990	EIF4A2			gi|53703765|ref|NP_0	eukaryotic translation initiatio	407	46402	5.5	0	o	Q	0	0
716	5	0.000378	0	0	NF		ENSG00000105568	PPP2R1A			gi|21361399|ref|NP_0	alpha isoform of regulatory s	589	65309	5.1	0	o	Q	21	0
717	5	0.000373	0	0	NF		ENSG00000188170	HBD			gi|4504351|ref|NP_0	delta globin [Homo sapiens]	147	16065	8	0	o	Q	20	0.142
718	5	0.00037	0	0	NF		ENSG00000167578	EDHA			gi|15641600|ref|NP_0	dehydrogenase/reductase (sh	664	73992	7.4	0	o	Q	33	0.743
719	5	0.000369	0	0	NF		ENSG00000055044	NOL5			gi|7706254|ref|NP_0	nucleolar protein NOP5/NOP	529	59578	8.9	0	o	Q	23	0
720	5	0.000354	0	0	NF		ENSG00000179335	CLK3			gi|15379137|ref|NP_0	CDC-like kinase 3 [Homo sap	490	58588	9.5	0	o	Q	0	0.000662
721	5	0.000344	0	0	NF		ENSG00000167647	ITKT			gi|50345597|ref|NP_0	ATP synthase, H+ transpoc	168	17490	5.5	0	o	Q	34	0.564
722	5	0.000345	0	0	NF		ENSG00000197958	RPL12			gi|4506597|ref|NP_0	ribosomal protein L12 [Homo	165	17819	9.4	0	o	Q	28	0
723	5	0.000345	0	0	NF		ENSG00000149943	LUC7L2			gi|16812577|ref|NP_0	LUC7-like 2 [Homo sapiens]	392	46514	10	0	o	Q	37	0
724	5	0.000338	0	0	NF		ENSG00000182866	LCK			gi|11278594|ref|NP_0	lymphocyte-specific protein t	509	58001	5.4	0	o	Q	0	0
725	5	0.000332	0	0	NF		ENSG00000130166	EHD3			gi|7657056|ref|NP_0	EH-domain containing 3 [Hom	535	60887	6.6	0	o	Q	0	0
726	5	0.000324	0	0	NF		ENSG00000134460	IARS2			gi|55770900|ref|NP_0	IRE-BP2 [Homo sapiens]	353	40140	9.9	0	o	Q	0	0
727	5	0.000318	0	0	NF		ENSG00000156261	CCT8			gi|48762932|ref|NP_0	chaperonin containing TCP1	548	59621	5.6	0	o	Q	19	0.064
728	5	0.000317	0	0	NF		ENSG00000078369	GNB1			gi|11321585|ref|NP_0	guanine nucleotide-binding p	340	37377	6	0	o	Q	0	0
729	5	0.000304	1	1.95E-05	15.66243		ENSG00000077274	TXAS1			gi|13609940|ref|NP_0	thromboxane A synthase 1 [H	490	52444	6.6	0	o	Q	37	0.707
730	5	0.000302	0	0	NF		ENSG00000143821	ILF2			gi|24234747|ref|NP_0	interleukin enhancer binding	437	50112	7.1	0	o	Q	47	0.001
731	5	0.000029	0	0	NF		ENSG00000182979	HNRPD			gi|14114968|ref|NP_0	heterogeneous nuclear ribon	306	32652	7.4	0	o	Q	25	0.201
732	5	0.000286	0	0	NF		ENSG00000105401	CDC37			gi|5901922|ref|NP_0	cell division cycle 37 protein	378	44468	5.2	0	o	Q	0	0.000858
733	5	0.000285	0	0	NF		ENSG00000096746	HNRPH3			gi|14141157|ref|NP_0	heterogeneous nuclear ribon	346	36926	6.9	0	o	Q	0	0
734	5	0.000284	1	5.67E-05	5.009123		ENSG00000163931	TKT			gi|45075219|ref|NP_0	transketolase [Homo sapiens	623	67879	7.7	0	o	Q	37	0
735	5	0.000283	2	2.58E-05	10.05478		ENSG00000137106	GRHPR			gi|6912396|ref|NP_0	glyoxylate reductase/hydroxy	328	35668	7.4	0	o	Q	27	0.019
736	5	0.000282	0	0	NF		ENSG00000180020	HNRNPUL2			gi|18601081|ref|NP_0	heterogeneous nuclear ribon	747	85105	4.9	0	o	Q	0	0
737	5	0.000228	0	0	NF		ENSG00000175220	ARHGAP1			gi|4757766|ref|NP_0	GTPase activating protein	439	50436	6.3	0	o	Q	0	0
738	5	0.000275	0	0	NF		ENSG00000023892	DEF6			gi|14531224|ref|NP_0	differentially expressed in FD	631	73910	6	0	o	Q	24	0.007
739	5	0.000274	0	0	NF		ENSG00000143799	RABP1			gi|15652368|ref|NP_0	retinoic acid (ADP-ribose) polymerase	1014	113864	8.9	0	o	Q	0	0
740	5	0.000272	0	0	NF		ENSG00000101162	ETUBB1			gi|13562114|ref|NP_0	beta tubulin 1, class VI [Hom	450	50327	5.2	0	o	Q	19	0
741	5	0.000269	0	0	NF		ENSG00000047001	RECQL			gi|14591904|ref|NP_0	RecQ protein-like isoform 1 [	649	73457	7.9	0	o	Q	21	0.001
742	5	0.000266	0	0	NF		ENSG00000106608	DKC1X15			gi|5852095|ref|NP_0	dyskerin (A-Ala-Val-Ile-Leu-Ile)	795	90933	7.5	0	o	Q	0	0
743	5	0.000264	0	0	NF		ENSG00000154451	GBP5			gi|16418425|ref|NP_0	guanylate-binding protein 5 [H	586	66617	5.6	0	o	Q	0	0
744	5	0.000262	0	0	NF		ENSG00000133315	LOC445296			gi|42882898|ref|NP_0	hypothetical protein LOC445	184	21533	10.1	0	o	Q	0	0
745	5	0.000262	0	0	NF		ENSG00000125753	EVASP			gi|4507869|ref|NP_0	vasodilator-stimulated phosp	380	39830	8.9	0	o	Q	16	0.000427
746	5	0.000261	0	0	NF		ENSG00000130726	ETRM28			gi|5032179|ref|NP_0	tripartite motif-containing 28	835	88550	5.8	0	s	Q	19	0.998
747	5	0.000259	0	0	NF		ENSG00000163154	TNFAIP8L2			gi|15738001|ref|NP_0	tumor necrosis factor, alpha-i	184	20556	8.4	0	o	Q	27	0.002
748	5	0.000255	0	0	NF		ENSG00000178950	GAK			gi|15738497|ref|NP_0	cyclin G associated kinase [H	1311	143190	5.7	0	s	Q	23	0.655
749	5	0.000254	3	4.44E-05	5.728217		ENSG00000096326	PFS35			gi|7999654|ref|NP_0	vacuolar protein sorting 35 [H	796	91707	5.5	0	o	Q	0	0
750	5	0.000253	0	0	NF		ENSG00000197214	TCEA1			gi|4543935|ref|NP_0	transcription elongation factor	280	31664	8.5	0	o	Q	0	0
751	5	0.000251	0	0	NF		ENSG00000136450	SFRS1			gi|5902076|ref|NP_0	splicing factor, arginine/serin	248	27745	10.4	0	o	Q	17	0
752	5	0.00025	0	0	NF		ENSG00000075624	PABPC1			gi|4263677|ref|NP_0	poly(A) binding protein, cytop	636	70671	9.5	0	o	Q	0	0
753	5	0.000249	0	0	NF		ENSG00000104518	GSDMDC1			gi|33320070|ref|NP_0	gasdermin domain containing	484	52801	5.1	0	o	Q	34	0
754	5	0.000249	0	0	NF		ENSG00000108883	EFTUD2			gi|41152056|ref|NP_0	elongation factor Tu GTP bin	972	109478	5	0	o	Q	0	0
755	5	0.000247	0	0	NF		ENSG00000124938	TCP1			gi|7882527|ref|NP_0	chaperonin containing TCP1, s	558	60334	6.1	0	o	Q	35	0
756	5	0.000244	0	0	NF		ENSG00000188529	LOC642558			gi|16916109|ref|XP_	PREDICTED: hypothetical pr	183	22222	10.3	0	o	Q	24	0.001
757	5	0.000239	1	1.14E-05	20.84934		ENSG00000141127	PPP5AP2			gi|45061533|ref|NP_0	phosphoprotein phosphopha	369	40928	7.4	0	o	Q	38	0.001
758	5	0.000232	0	0	NF		ENSG00000180096	SEPT1			gi|16604248|ref|NP_0	septin 1 [Homo sapiens]	367	41971	5.8	0	o	Q	32	0
759	5	0.000231	0	0	NF		ENSG00000031698	SARS			gi|16306548|ref|NP_0	seryl-tRNA synthetase [Hom	514	58777	6.4	0	o	Q	0	0
760	5	0.000223	1	1.53E-05	16.08024		ENSG00000156508	EIF3S2			gi|5695213|ref|NP_0	eukaryotic translation initiatio	445	50663	6.5	0	o	Q	21	0.004
761	5	0.000228	0	0	NF		ENSG00000176390	CRLF3			gi|15614218|ref|NP_0	cytokine receptor-like factor	442	49766	5.1	0	o	Q	23	0
762	5	0.000226	0	0	NF		ENSG00000165323	SCK			gi|4758976|ref|NP_0	c-src tyrosine kinase [Homo s	450	50704	7.1	0	o	Q	17	0.001
763	5	0.000223	0	0	NF		ENSG00000092841	MYL6			gi|7986258|ref|NP_0	myosin, light chain 6, alkali, s	151	16930	4.7	0	o	Q	0	0
764	5	0.000222	2	2.59E-05	8.584209		ENSG00000190072	ETN			gi|88853069|ref|NP_0	vitronectin precursor [Homo s	478	54306	5.8	0	s	Q	20	0.999
765	5	0.000221	0	0	NF		ENSG00000100811	YRPL42			gi|9966764|ref|NP_0	phosphoprotein p44 [Homo s	231	24737	7.2	0	o	Q	20	0.246
766	5	0.000218	0	0	NF		ENSG00000162909	CAPN2			gi|15738005|ref|NP_0	calpain 2, large subunit [Hom	700	80009	5	0	o	Q	15	0
767	5	0.000216	0	0	NF		ENSG00000023191	RNH1			gi|4282287|ref|NP_0	ribonuclease/angiogenin inhi	461	49974	4.8	0	o	Q	36	0
768	5	0.000215	0	0	NF		ENSG0000015953	OGDH			gi|51873090|ref|NP_0	oxoglutarate (alpha-ketoglut	1023	116935	8.9	0	o	Q	17	0.015
769	5	0.000214	0	0	NF		ENSG00000168291	PDHB			gi|15656443|ref|NP_0	pyruvate dehydrogenase (lipo	359	39233	6.6	0	o	Q	39	0.066
770	5	0.000214	0	0	NF		ENSG00000085662	AKR1B1			gi|5029449|ref|NP_0	aldo-keto reductase family 1,	316	35853	7	0	o	Q	32	0.007
771	5	0.00021	0	0	NF		ENSG00000092010	PSME1			gi|5453990|ref|NP_0	proteasome (prosome, macr	249	28723	6	0	o	Q	0	0.000281
772	5	0.000209	0	0	NF		ENSG00000108953	FYWHAE			gi|5803225|ref|NP_0	tyrosine 3/tryptophan 5 -mon	255	29174	4.7	0	o	Q	0	0
773	5	0.000205	1	1.06E-05	9.37686		ENSG00000166851	RPL5			gi|9453862|ref|NP_0	ribosomal protein L5 [Homo sapiens]	428	47064	5.3	0	o	Q	22	0.003
774	5	0.000205	0	0	NF		ENSG00000099901	RANBP1			gi|4506407|ref|NP_0	RAN binding protein 1 [Homo	201	23310	5.3	0	o	Q	0	0
775	5	0.000203	0	0	NF		ENSG00000131051	RBM39			gi|5549381|ref|NP_0	RNA binding motif protein 39	530	59380	10.1	0	o	Q	0	0.000612
776	5	0.000202	0	0	NF		ENSG00000166848	HNRPUL1			gi|15362074|ref|NP_0	E1B-55kDa-associated prote	756	82329	8.8	0	o	Q	0	0
777	5	0.000199	0	0	NF		ENSG00000117593	DARS2			gi|40789249|ref|NP_0	aspartyl-tRNA synthetase 2,	645	73563	8	0	o	Q	16	0.015
778	5	0.000197	0	0	NF		ENSG00000115425	PHGDH			gi|5139519|ref|NP_0	phosphoglycerate dehydrog	1912	56642	6.9	0	o	Q	0	0
779	5	0.000193	0	0	NF		ENSG00000139684	EESD			gi|33413400|ref|NP_0	esterase D/formylglutathione	282	31463	7	0	o	Q	27	0
780	5	0.00019	0	0	NF		ENSG00000187109	NAP1L5			gi|21327708|ref|NP_0	nucleosome assembly protei	391	45374	4.5	0	o	Q	0	0
781	5	0.000189	2	2.02E-05	13.62236		ENSG00000171223	KIAA0776			gi|24308039|ref|NP_0	hypothetical protein LOC234	794	89595	8.8	0	o	Q	24	0
782	5	0.000188	4	1.42E-05	13.21525		ENSG00000171490	RSL1D1			gi|11849835|ref|NP_0	ribosomal L1 domain contain	429	54973	10.1	0	s	Q	24	0.558
783	5	0.000185	0	0	NF		ENSG00000137502	HPKA			gi|18725003|ref|NP_0	hexacylylcysteol kinase, alpha	735	82630	8.7	0	o	Q	17	0
784	5	0.000185	0	0	NF		ENSG00000100368	LPXN			gi|4759670|ref|NP_0	leupaxin [Homo sapiens]	398	43332	6	0	o	Q	17	0
785	5	0.000183	0	0	NF		ENSG00000205531	NAP1L4			gi|5174613|ref|NP_0	nucleosome assembly protei	375	42823	4.7	0	o	Q	18	0
786	5	0.000018	0	0	NF		ENSG00000134326	CCRO7			gi|8870297|ref|NP_0	chemokine receptor 7 [Homo sapiens]	525	60128	8.6	0	o	Q	57	0.001
787	5	0.000179	3	1.48E-05	12.10385		ENSG00000135624	CCT7			gi|5453607|ref|NP_0	chaperonin containing TCP1	543	59367	7.6	0	o	Q	19	0.002
788	5	0.000176	2	2.6E-05	6.38986		ENSG00000115866	DARS			gi|5439306|ref|NP_0	aspartyl-tRNA synthetase [H	501	57136	6.5	0	o	Q	0	0
789	5	0.00017	0	0	NF		ENSG00000122406	RPL5			gi|14991909|ref|NP_0	ribosomal protein L5 [Homo s	297	34363	9.7	0	o	Q	0	0
790	5	0.000169	0	0	NF		ENSG00000111530	CAND1			gi|21361794|ref|NP_0	TIP120 protein [Homo sapien	1230	136375	5.8	0	o	Q	19	0
791	5	0.000166	1	5.81E-05	24.41116		ENSG00000182774	HNRPH2			gi|7409667|ref|NP_0	heterogeneous nuclear ribon	449	49264	5.9	0	o	Q	25	0.003
792	5	0.000165	0	0	NF		ENSG00000167770	CTUB1			gi|10914858|ref|NP_0	ctubain 1 [Homo sapiens]	271	31284	4.9	0	o	Q	0	0
793	5	0.000165	3	2.86E-05	5.752139		ENSG00000181789	COPG			gi|11559929|ref|NP_0	coatomer protein complex, s	874	97718	5.5	0	o	Q	0	0
794	5	0.000164	0	0	NF		ENSG00000154188	ANR57			gi|45064339|ref|NP_0	ankyrin repeat domain 57 [H	425	47820	5	0	o	Q	0	0
795	5	0.000164	0	0	NF		ENSG00000119314	BCD1			gi|38569466|ref|NP_0	RQD1 regulator of differentia	552	59690	9	0	o	Q	17	0.001
796	5	0.000162	0	0	NF		ENSG00000126602	SMU1			gi|10994830|ref|NP_0	smu-1 suppressor of mec-8 a	513	57546	7.2	0	o	Q	0	0
797	5	0.000161	2	2.96E-05	5.396352		ENSG00000117448	AKR1A1			gi|24977577|ref|NP_0	aldo-keto reductase family 1,	325	36573	6.8	0	o	Q	0	0
798	5	0.000158	0	0	NF		ENSG00000092201	SUPT16H			gi|6005757|ref|NP_0	chromatin-specific transcripti	1047	119914	5.7	0	o	Q	0	0
799	5	0.000153	0	0	NF		ENSG00000109944	PFKGB			gi|21361370|ref|NP_0	brain glycogen phosphorylas	843	96916	6.9	0	o	Q	27	0
800	5	0.000151	0	0	NF		ENSG00000150867	PIP5K2A			gi|6857820|ref|NP_0	phosphatidylinositol-5-phosp	406	46225	7	0	o	Q	49	0.009
801	5	0.000151	0	0	NF		ENSG00000111667	USP5			gi|18727247|ref|NP_0	ubiquitin specific peptidase 5	835	93308	5.1	0	o	Q	22	0.006
802	5	0.00015	0	0	NF		ENSG00000064444	ELAVL1			gi|38207174|ref|NP_0	ELAV-like 1 [Homo sapiens]	326	36092	9.2	0	o	Q	0	0
803	5	0.000148	0	0	NF		ENSG00000183431	SF3A3			gi|5803167|ref|NP_0	splicing factor 3a, subunit 3 [	501	58849	5.4	0	o	Q	0	0
804	5	0.000148	0	0	NF		ENSG00000198815	SFRS11			gi|14885225|ref|NP_0	splicing factor, arginine/serin	656	68429	9.3	0	o	Q	20	0.001
805	5	0.000147	0	0	NF		ENSG00000179051	ERCC2			gi|29789090|ref|NP_0	regulator of chromosome con	522	56085	8.8	0	o	Q	24	0.005
806	5	0.000146	0	0	NF		ENSG00000099942	CRKL			gi|4885153|ref|NP_0	v-crk sarcoma virus CT10 on	303	33777	6.7	0	o	Q	25	0
807	5	0.000146	0	0	NF		ENSG00000138383	ATIC			gi|20127454|ref|NP_0	5-aminoimidazole-4-carboxa	592	64616	6.7	0	s	Q	39	0.156
808	5	0.000143	0	0	NF		ENSG00000173240	SUCLG2			gi|15779135|ref|NP_0	succinate-CoA ligase, GDP-fo	435	46511	6.4	0	s	Q	30	0.654
809	5	0.000141	0	0	NF		ENSG00000185633	RMCM7			gi|34896868|ref|NP_0	minichromosome maintenan	719	81308	6.5	0	o	Q	0	0
810	5	0.000141	3	3.82E-06	36.89277		ENSG00000076944	STXBP2			gi|5902197|ref|NP_0	syntaxin binding protein 2 [H	593	66439	6.5	0	o	Q	17	0.001
811	5	0.000135	3	1.35E-05	9.982807		ENSG00000204463	BAT3			gi|14915892|ref|NP_0	HLA-B associated transcript-	1132	119409	5.6	0	o	Q	0	0
812	5	0.000134	0	0	NF		ENSG00000130303	KRN2			gi|18855016|ref|NP_0	E-3' exoribonuclease 2 [Homo	1232	139409	5.6	0	o	Q	16	0.001
813	5	0.000134	0	0	NF		ENSG00000115524	ESF3B1			gi|54112117|ref|NP_0	splicing factor 3b, subunit 1 [	1304	145830	7.1	0	o	Q	0	0
814	5	0.000133	0	0	NF		ENSG00000083312	TNPO1			gi|13992581|ref|NP_0	transportin 1 isoform 1 [Hom	938	102355	5	0	o	Q	0	0
815	5	0.000133	0	0	NF		ENSG00000139900	CNPY3			gi|14128437|ref|NP_0	canopy9 (Drosophila) homo	819	93257	5.2	0	o	Q	19	0
816	5	0.000132	0	0	NF		ENSG00000115419	GLS			gi|15610478|ref|NP_0	glutaminase [Homo sapiens]	669	73461	7.8	0	o	Q	29	0.487
817	5	0.000131	1	1.93E-05	67.68439		ENSG00000047315	POLR3B			gi|45059419|ref|NP_0	DNA directed RNA polymera	1174	133486	7.6	0	o	Q	0	0
818	5	0.000129	0	0	NF		ENSG00000100304	TTLL12			gi|11056036|ref|NP_0	tubulin tyrosine ligase-like fa	542	74404	5.5	0	o	Q	42	0.001
819	5	0.000129	0	0	NF		ENSG00000100297	MCM5			gi|23510448|ref|NP_0	minichromosome maintenan	734	82286	8.4	0	o	Q	22	0
820	5	0.000126	0	0	NF		ENSG00000148180	GSN			gi|4505643|ref|NP_0	SH2 containing inositol phos	1188	133193	7.6	0	o	Q	24	0
821	5	0.000125	0	0	NF		ENSG00000124357	NAGK			gi|49574508|ref|NP_0	N-acetylglucosamine kinase	344	37376	6.2	0	o	Q	16	0.001
822	5	0.000124	1	2.5E-06	49.61637		ENSG00000175166	PSMD2			gi|22777602|ref|NP_0	prote

rk	NEs detected # out of 10 runs	NEs dNSAF_A VG	MMs detected # out of 8 runs	MMs dNSAF_A VG	NEs:MMs	Detected in Mitochondria	ORTHO_GROUP	GENE_NAME	NET_NAME	Location & Gene Expression Data	Locus	Description	Length	MW	pI	PredHel	TMHMM_Topology	SIGNALP _HMM_P OS	SIGNALP _HMM_S PROB	RESTING LYMPHOCYTES NEs: HsNaOH-NE_NT_lymphocytes_Ch1_dNSAF	HsNaOH-NE_NT_lymphocytes_Ch2_dNSAF	HsNaOH-NE_NT_lymphocytes_PK_1_dNSAF	HsSD-NE_NT_lymphocytes_Ch1_dNSAF	HsSD-NE_NT_lymphocytes_PK_1_dNSAF	NT-dNEs Detected # Out of 5	NT-dNSAF AVG	NT-dNSAF SDV	PHA-TREATED LYMPHOCYTES NEs: HsNaOH-NE_PHA_lymphocytes_Ch1_dNSAF	HsNaOH-NE_PHA_lymphocytes_Ch2_dNSAF	HsNaOH-NE_PHA_lymphocytes_PK_1_dNSAF	HsSD-NE_PHA_lymphocytes_Ch1_dNSAF	HsSD-NE_PHA_lymphocytes_PK_1_dNSAF	PHA-dNEs Detected # Out of 5	PHA-dNSAF AVG	PHA-dNSAF SDV	MMs: MmNaOH-MM_liver_Ch1_dNSAF	MmNaOH-MM_liver_Ch2_dNSAF	RnNaOH-MM_liver_Ch1_dNSAF	RnNaOH-MM_liver_Ch2_dNSAF	RnNaOH-MM_liver_Ch3_dNSAF	RnNaOH-MM_liver_Ch4_dNSAF	RnNaOH-MM_liver_PK_1_dNSAF	RnNaOH-MM_liver_PK_2_dNSAF	Region_Note	GO_Component	GO_Function
834	5	0.000109	2	8.48E-06	12.85653		ENSG00000138768:gUSO1				gi	4505541	ref	NP_0	USO1 homolog, vesicle dock	962	107907	4.9	0	0		21	0.019		0	7.27E-05	0.000391	3.87E-05		3	0.000125	0.00018																			Chromosome segregation	cytoplasm; Golgi membrane	binding; protein transporter
835	5	0.00109	0	0	NF		ENSG00000104365:gIKBKB				gi	4135212	ref	NP_0	inhibitor of kappa light polype	756	86564	5.8	0	0		15	0.004		0	0.000126	0.000249	0.000187		3	0.00163	0.00111													Serine/Threonine protein	cytoplasm	ATP binding; nucleotide
836	5	0.00109	0	0	NF		ENSG00000100291:gSNRPD3				gi|2596413|ref|NP_0	U1 small nuclear ribonucleopr	437	51562	10.4	0	0		25	0.031	0.000371	0.000107	0	0.000202		3	0.00127	0.00157													RNA recognition motif;	nucleus; spliceosome complex	nucleotide binding; protein
837	5	0.000108	0	0	NF		ENSG00000123338:gNCKAP1L				gi	34485277	ref	NP_	NCK-associated protein 1-lik	1127	128153	6.9	0	0		25		0	0.000593		9.4E-05		3	4.94E-05	3.71E-05														integral to plasma membrane	cytoplasm; mitochondrion	binding; RNA binding [pmid
838	5	0.000103	1	1.63E-06	63.17037		ENSG00000138095:gLRPPRC				gi	3621305	ref	NP_	leucine-rich PPR motif-contai	1394	157904	6.1	0	0		37	0.99		0	0.00268		0.000228		2	0.00124	0.000144														8.1E-05	7.46E-05		1.3E-05						6-phosphofructokinase, a key	6-phosphofructokinase
839	5	1E-04	0	0	NF		ENSG00000067057:gPFKP				gi	11321601	ref	NP_	phosphofructokinase, platelet	784	85590	7.6	0	0		31	0.99		0	0.00261		8.93E-05		2	0.00103	0.00115														4.16E-05	0.000392		0.00137	0.00178						6-phosphofructokinase
840	5	9.93E-05	0	0	NF		ENSG00000072786:gSTK10				gi	12636297	ref	NP_	serine/threonine kinase 10 [H	968	112135	6.9	0	0		21		0	0.00281		0.000219		2	0.00012	0.00014														1.69E-05	0.000159		7.86E-05	8.18E-05						
841	5	9.85E-05	0	0	NF		ENSG00000117228:gGRP1				gi	4503939	ref	NP_0	guanylate binding protein 1, i	592	67903	6.3	0	0		20	0.002		0	0.00315		0.000179		2	0.00124	0.000153														2.76E-05	0.00013		7.34E-05	6.98E-05						
842	5	9.82E-05	0	0	NF		ENSG00000124333:gLDHA				gi	50318857	ref	NP_	lactate dehydrogenase A [Ho	332	36689	8.3	0	0		37		0	7.03E-05		0.000233		2	7.08E-05	0.0001														4.92E-05	0.000116		0.00013	0.00018						0 L-lactate dehydrogenase
843	5	9.57E-05	0	0	NF		ENSG00000173366:gTLR9				gi|6005846|ref|NP_0	toll/interlkin-like protein [Homo sa	349	39548	6.9	0	0		23		0	0.00134		0.000253		2	9.67E-05	0.000122														0.00014	0.00011		3.47E-05	6.44E-05						Actin depolymerisation	cytoskeleton; intracellular	actin binding
844	5	9.49E-05	0	0	NF		ENSG00000144749:gCCDC94V1				gi|27477119|ref|NP_	zinc finger antiviral protein [H	1019	114141	8.4	0	0		19	0.036	0.00036	0	0.00128		0.000137		2	0.00135	0.00140														9.05E-05	4.28E-05		3.33E-05	1.57E-05						Poly(ADP-ribose)	nucleus	metal ion binding; NAD+ ADP
845	5	9.32E-05	0	0	NF		ENSG00000183808:gRBM12B				gi	18722349	ref	NP_	RNA binding motif protein 12	1001	118103	6.8	0	0		17	0.162		0	6.99E-05		0.000229		2	7.48E-05	0.000108														0.00019	0.000228	3.83E-05	3.0001E-05	0.00011						
846	5	9.26E-05	0	0	NF		ENSG00000184432:gCOPB2				gi|4758032|ref|NP_0	coatomer protein complex, su	906	102487	5.3	0	0		41		0	7.72E-05		9.75E-05		2	4.37E-05	5.11E-05														0.00014	3.6E-05	0.000381		3.0001E-05	0.000172						WD40 domain, found in a	COPI vesicle coat [pmid	protein transporter activity
847	5	9.21E-05	0	0	NF		ENSG00000134954:gETS1				gi|13480015|ref|NP_0	v-ets erythroblastosis virus E2	400	54934	8.6	0	0		20	0.816		0	0.00075		0.000179		2	3.35E-05	0.000107														0.00152	9.8E-05		9.2E-05	6.51E-05						Serine/Threonine protein	extracellular region [pmid	ATP binding; nucleotide
848	5	9.19E-05	0	0	NF		ENSG00000104738:gMCM4				gi|34969919|ref|NP_0	minichromosome maintenan	863	96558	6.7	0	0		32		0	0.00108		8.19E-05		2	4.75E-05	5.99E-05														0.00286	0.00097		0.00138	0.00122						ATPase family associated	nucleus [pmid 8265338]	ATP binding; DNA binding;
849	5	9.19E-05	0	0	NF		ENSG00000155229:gEIF3CL				gi	15379692	ref	NP_0	eukaryotic translation initiatio	914	105575	5.6	0	0		20		0	2.55E-05		9.66E-05		2	3.05E-05	4.57E-05														0.00153	0.00548		0.00203	0.00282						
850	5	8.91E-05	0	0	NF		ENSG00000165229:gMMS19				gi	15773869	ref	NP_	MMS19 nucleotide excision	1051	115705	6.5	0	0		31	0.747		0	0.00055		9.14E-05		2	4.72E-05	7.38E-05														0.00107	0.00135		0.00421	0.00167						
851	5	8.89E-05	0	0	NF		ENSG00000180644:gPRF1				gi	13390821	ref	NP_	perforin 1 precursor [Homo s	555	61377	7.8	0	0		26	1		0	0.00042		6.37E-05		2	0.00121	0.000202														4.04E-05	0.000118		5.68E-05	4.95E-05						
852	5	8.89E-05	0	0	NF		ENSG00000133706:gLARS				gi	10877381	ref	NP_0	leucyl-tRNA synthetase [Hom	1176	134602	7.1	0	0		41		0	7.63E-05		9.01E-05		2	4.24E-05	4.91E-05														0.00159	0.000139		0.00129	0.00126						
853	5	8.85E-05	0	0	NF		ENSG00000113407:gTARS				gi|38202255|ref|NP_	threonyl-tRNA synthetase [H	723	83435	6.7	0	0		23		0	0.00129		0.000147		2	6.89E-05	7.99E-05														0.00159	0.000212		0.00108	9.52E-05						Threonyl-RNA synthetase	cytoplasm [pmid 2033077];	ATP binding; electron carrier
854	5	8.76E-05	0	0	NF		ENSG00000213965:gNUDT19				gi	15773994	ref	NP_	nudix (nucleoside diphosphat	375	42233	7.6	0	0		28	0.977		0	0.00124		9.42E-05		2	5.47E-05	8.43E-05														5.98E-05	0.000228		0.00025	0.00121						
855	5	8.52E-05	0	0	NF		ENSG00000145833:gCDCA8				gi|14127773|ref|NP_0	cell division cycle associated	1031	117362	9.3	0	0		25		0	0.00187		8.57E-05		2	6.61E-05	0.000115														0.00283	9.5E-05		3.72E-05	8.57E-05						Helicase superfamily c-	nucleus	ATP binding; ATP-dependent
856	5	8.38E-05	0	0	NF		ENSG00000065427:gKARS				gi|5031815|ref|NP_0	lysyl-tRNA synthetase [Homo	597	68048	6.4	0	0		14		0	7.81E-05		8.88E-05		2	4.17E-05	4.84E-05														3.76E-05	0.000273		0.000193	0.000129						Helicase superfamily c-	cytoplasm [pmid 9278442];	ATP binding; ligase activity;
857	5	8.14E-05	0	0	NF		ENSG00000124491:gTBL1XR1				gi|11939057|ref|NP_0	transducin(beta)-like 1 X-link	732	83588	6	0	0		23		0	0.00012		8.72E-05		2	7.41E-05	0.000153														0.00153	4.46E-05	0.000157		4.88E-05	7.89E-05						activation peptide		
858	5	8.14E-05	0	0	NF		ENSG00000136937:gNCBP1				gi|4505343|ref|NP_0	nuclear cap binding protein s	790	91839	6.4	0	0		0		0	8.86E-05		8.94E-05		2	4.45E-05	5.14E-05														0.00114	0.000165	0.00194	3.0001E-05	8.57E-05						Middle domain of	nucleoplasm [pmid 7937105]	protein binding [pmid
859	5	8E-05	1	2.64E-06	30.27558		ENSG00000072818:gCENTB1				gi|7661680|ref|NP_0	centaurin beta1 [Homo sapie	740	81536	7.7	0	0		0	0.000219	0.000315	0	2.39E-05		3.9E-05		3	0.00014	0.000153														3.03E-05		5.19E-05		2.12E-05						Putative GTPase activating		GTPase activator activity;
860	5	7.88E-05	0	0	NF		ENSG00000244231:gTPR				gi	11415514	ref	NP_0	translocase of inner mitochon	2363	267090	5	0	0		15		0	0.000197	1.97E-05		2.9E-05		2	3.92E-05	6.66E-05	0.000376	2.85E-05		6.91E-05																		
861	5	7.85E-05	0	0	NF		ENSG00000116584:gARHGEF2				gi|15011974|ref|NP_0	rho/rac guanine nucleotide e	958	108242	6.9	0	0		29	0.029		0	0.00017		9.22E-05		2	6.57E-05	8.23E-05		0.000234		5.11E-05	8.01E-05									9.14E-05	0.000110								Protein kinase C conserved	intracellular; microtubule [pmid	diacylglycerol binding; metal
862	5	7.66E-05	1	2.2E-05	34.75541		ENSG00000163114:gSR140				gi	12937227	ref	NP_0	U2-associated SR140 protein	1029	120322	9.1	0	0		23		0	2.27E-05		5.19E-05		2	1.85E-05	2.44E-05	0.000431	4.58E-05		6.34E-05			1.78E-05														
863	5	7.36E-05	1	4.5E-06	16.35258		ENSG00000073111:gMCM2				gi	33356654	ref	NP_0	minichromosome maintenan	904	101896	5.5	0	0		21		0	2.58E-05	0.000208	9.77E-05		2	8.28E-05	9.3E-05		0.000149		0.000108		3.6E-05								9.14E-05	7.61E-05								Magnesium chelatase,	chromatin [pmid 8798650];	ATP binding; DNA binding
864	5	7.31E-05	0	0	NF		ENSG00000121892:gFDS5A				gi	15503026	ref	NP_0	PDS5, regulator of cohesion	1337	150830	7.9	0	0		25	0.21		0	0.00105		0.000167		2	6.8E-05	8.26E-05		0.000161		3.66E-05	0.000115		7.81E-05	7.32E-05															
865	5	7.21E-05	0	0	NF		ENSG00000146232:gPAC7				gi	40556376	ref	NP_0	cytokine-like protein factor 1	553	60547	9.2	0	0		23	0.007		0	8.44E-05		0.000224		2	7.7E-05	0.000106		0.000116		6.94E-05	0.000157		6.72E-05	4.93E-05													phosphogluconate		
866	5	7.14E-05	0	0	NF		ENSG00000088205:gDDX18				gi	38327634	ref	NP_0	DEAD (Asp-Glu-Ala-Asp) box	670	75407	9.5	0	0		39		0	6.96E-05		0.000237		2	7.67E-05	0.000112		0.000134		7.31E-05	5.73E-05		5.61E-05	5.51E-05															
867	5	7.14E-05	0	0	NF		ENSG00000111581:gNUP107				gi	9966881	ref	NP_0	nucleoporin 107kDa [Homo s	925	106374	5.4	0	0		18		0	0.00128		0.000115		2	6.02E-05	6.99E-05		0.000218		7.06E-05	4.15E-05		8.26E-05	9.55E-05													Nuclear pore protein 84 /	nuclear pore [pmid 11564755]	nucleocytoplasmic
868	5	7.08E-05	0	0	NF		ENSG00000107313:gNUP98				gi	45079291	ref	NP_0	nucleoporin 98kD [Homo sap	246	98219	4.8	0	0		25		0	0.00020		7.31E-05		2	6.93E-05	0.000146		0.000128		9.31E-05			7.39E-05	9.46E-05													cytoplasm		activity; glucocorticoid
869	5	6.97E-05	0	0	NF		ENSG00000187555:gUSP7				gi	15037833	ref	NP_0	ubiquitin specific protease 7	1102	128302	5.6	0	0		0		0	0.00127		0.00016		2	7.18E-05	8.4E-05		8.14E-05		1.48E-05	0.000174		6.76E-05	7.94E-05															
870	5	6.93E-05	0	0	NF		ENSG00000134461:gEIF3A				gi	27883868	ref	NP_0	eukaryotic translation initiatio	537	60372	5.3	0	0		0	0.000002		0	4.34E-05		6.58E-05		2	0.00103	0.000136					0.000203		1.57E-05	4.26E-05															
871	5	6.86E-05	0	0	NF		ENSG00000159131:gGATC				gi	4503915	ref	NP_0	phosphoribosylglycinamide f	1010	107767	6.7	0	0		19	0.047		0	0.00185		0.00014		2	8.12E-05	9.55E-05		8.89E-05		9.7E-05	3.8E-05		3.5E-05	4.55E-05													PurM (Aminoimidazole	cytoplasm	ATP binding; catalytic
872	5	6.83E-05	0	0	NF		ENSG00000110367:gDDX6				gi	4758140	ref	NP_0	DEAD (Asp-Glu-Ala-Asp) box	472	53216	8.7	0	0		30		0	9.88E-05		3.74E-05		2	3.41E-05	4.66E-05		0.00019		0.000138	8.13E-05		3.0001E-05	8.15E-05													Helicase superfamily c-	nucleus	ATP binding; ATP-dependent
873	5	6.77E-05	0	0	NF		ENSG00000167658:gEIF2B				gi	7657015	ref	NP_0	eukaryotic translation initiatio	505	59402	6.4	0	0		25		0	9.24E-05		7.76E-05		2	4.64E-05	8.77E-05		0.000429		0.000259	7.6E-05		9.47E-05	0.000104													Uncharacterized conserved		
874	5	6.71E-05	0	0	NF		ENSG00000089737:gDDX24				gi	9966805	ref	NP_0	DEAD (Asp-Glu-Ala-Asp) box	859	96332	9.1	0	0		0		0	5.43E-05		0.000165		2	5.47E-05	7.76E-05		0.000235		3.8E-05	4.47E-05		7.94E-05	0.000106													nucleolus [pmid 11256614]		ATP binding; ATP-dependent
875	5	6.63E-05	0	0	NF		ENSG00000018010:gFYN				gi	23510362	ref	NP_0	protein-tyrosine kinase fyn is	534	60141	6.2	0	0		0		0	4.9E-05		0.000132		2	4.51E-05	6.24E-05		8.4E-05		0.000122	0.000144		8.75E-05	6.34E-05													Src homology 3 domains;		ATP binding; identical protein
876	5	6.6E-05	1	1.79E-06	36.86244		ENSG00000265785:gHEATR1				gi	73690475	ref	NP_0	HEAT repeats BAP28 [Homo sapien	2144	242588	8.5	0	0		19	0.028		0	0.00010		9.06E-05		2	4.94E-05	7.32E-05		7.32E-05		7.61E-05	3.21E-05		1.43E-05	8.97E-05													nucleus		binding; protein binding [pmid
877	5	6.59E-05	2	3.49E-06	18.85091		ENSG00000107099:gDOCK8				gi	44889960	ref	NP_0	dedicator of cytokinesis 8 [Ho	2031	230818	6.8	0	0		17		0	0.00015		0.000165		2	7E-05	8.34E-05		6.63E-05		4.82E-05	0.000132		6.17E-05	5.48E-05		2.09E-05		0	7.07E-06								Dedicator of cytokinesis.		binding; GTP binding;
878	5	6.45E-05	0	0	NF		ENSG00000132535:gRARS				gi	4472124	ref	NP_0	arginyl-tRNA synthetase [Ho	584	64446	8.1	0	0		0		0	0.00128		7E-05		2	4.24E-05	6.24E-05		1.76E-05		0.000116	5.09E-05		7.92E-05	6.48E-05													This is the catalytic core	cytoplasm [pmid 7721108];	aminoacyl-tRNA ligase
879	5	6.39E-05	0	0	NF		ENSG00000177731:gFLII				gi	4503743	ref	NP_0	flightless I homolog [Homo sa	1269	144751	6.1	0	0		16	0.014		0	0.00011		0.000111		2	5.54E-05	6.4E-05		1.77E-05		9E-05	0.000182		7.23E-05	8.26E-05													Leucine-rich repeats	cytoskeleton; nucleus	actin binding [pmid
880	5	6.36E-05	0	0	NF		ENSG00000076003:gMCM6				gi	7427519	ref	NP_0	minichromosome maintenan	821	92889	5.4	0	0		0		0	8.52E-05		6.45E-05		2	3.74E-05	4.41E-05		2.37E-05		0.000239	9.35E-05		8.98E-05	0.000107													Magnesium chelatase,	nucleus [pmid 9286856];	ATP binding [pmid 9286856];
881	5	6.15E-05	0	0	NF		ENSG00000110713:gNUP98				gi	12643659	ref	NP_0	nucleoporin 98kD isoform 1	1800	199240	5.1	0	0		25	0.034		0	0.00015		5.88E-05		2	2.46E-05	1.81E-05	0.000235	2.46E-05		1.81E-05	0.000235		9.94E-05	2.91E-05													Nucleoporin autopeptidase	nucleus [pmid 9345540];	protein binding [pmid
882	5	5.99E-05	1	3.89E-06	15.39086		ENSG00000136628:gERPS				gi	62241042	ref	NP_0	glutamyl-prolyl tRNA synthet	1512	170590	7.3	0	0		20	0.024		0	0.00108		8.18E-05		2	4.74E-05	5.58E-05		2.97E-05		0.000183	7.62E-05		3.11E-05	8.05E-05													GST_C family, Gamma	cytoplasm [pmid 8188258];	ATP binding; glutamate-tRNA
883	5	5.98E-05	0	0	NF		ENSG00000179337:gPPIP4				gi	56953087	ref	NP_0	G protein-binding protein CR	25	7.36E-05	0	0	0		25		0	7.36E-05		0.000223		2	7.41E-05	0.000156		3.54E-05		2.57E-05	0.000201		4.95E-05	0.000107													HoCr1 is a nucleotide GTP-	nucleus	ATP binding; nucleotide
884	5	5.83E-05	0	0	NF		ENSG00000158417:gEFSB				gi	84043963	ref	NP_0	eukaryotic translation initiatio	1220	138827	5.5	0	0		0		0	7.88E-05		4.34E-05		2	4.1E-05	3.7E-05		5.52E-05		0.000134	0.000127		8.66E-05	7.24E-05													eIF2/eIF5B (initiation factors		ATP binding; nucleotide
885	5	5.75E-05	0	0	NF		ENSG00000183486:gMX2				gi	11342664	ref	NP_0	myxovirus resistance protein	715	82089	8.8	0	0		52		0	0.00163		4.94E-05		2	5.31E-05	7.69E-05		0.000126		6.85E-05	5.37E-05		6.19E-05	5.16E-05													Dynamin, GTPase; Large	cytoplasm [pmid 8798556];	ATP binding; GTPase
886	5	5.71E-05	0	0	NF		ENSG00000148773:gMAT2A				gi	14141170	ref	NP_0	methionine adenosyltransferas	668	79307	6.2	0	0		0		0	8.68E-05		7.58E-05		2	3.28E-05	5.8E-05		4.89E-05		4.89E-05	0.000201		6.17E-05	5.82E-05													Histone deacetylase complex	nucleus	ATP binding; sequence-
887	5	5.53E-05	0	0	NF		ENSG00000163932:gPRKCD				gi	47157325	ref	NP_0	protein kinase C, delta [Homo	676	77505	7.8	0	0		20	0.018	0.00024	3.45E-05	0	7.84E-05		2	8.82E-05	0.000106		3.32E-05		5.6E-05	0.000127		2.25E-05	2.77E-05													Protein kinase C conserved	[pmid 16611985];	ATP binding; diacylglycerol
888	5	5.31E-05	0	0	NF		ENSG00000137265:gIRF4				gi	4505287	ref	NP_0	interferon regulatory factor 4	451	51712	6.7	0	0		23		0	0.00103		7.83E-05		2	4.54E-05	5.35E-05		4.97E-05		0.000169	8.51E-05		6.09E-05	4.72E-05													Interferon Regulatory	nucleus [pmid 8657101] [pmid	RNA polymerase II
889	5	5.14E-05	0	0	NF		ENSG00000144476:gLTAH1				gi	4505029	ref	NP_0	leukotriene A4 hydrolase [Ho	611	69284	6.2	0	0		20	0.022		0	3.82E-05		8.67E-05		2	3.12E-05	4.16E-05		3.67E-05		0.000167	6.28E-05		3.16E-05	7.5E-05													Peptidase family M1		epoxide hydrolase activity
890	5	5.03E-05	0	0	NF		ENSG00000143924:gEML4				gi	19923497	ref	NP_0	echinoderm microtubule assi	981	108903	6.3	0	0		18		0	4.76E-05		9E-05		2	3.44E-05	4.33E-05		0.000114		3.33E-05	0.000117		3.63E-05	5.89E-05													HELP motif. The HELP	cytoplasm [pmid 10995578];	
891	5	5.01E-05	0	0	NF		ENSG00000160791:gADAR				gi	7016852	ref	NP_0	adenosine deaminase, RNA-s	1226	125493	8.6	0	0		20		0	0.00015		8.94E-05		2	5.91E-05	7.39E-05		2.66E-05		2.66E-05	0.000158		4.06E-05	3.09E-05													Double-stranded RNA	cytoplasm [pmid 7565688];	DNA binding; double-
892	5	5E-05	0	0	NF		ENSG00000077097:gTOP2B				gi	19913408	ref	NP_0	DNA topoisomerase II, beta [	1621	182661	8.1	0	0		19	0.229		0	7.19E-05		0.000128		2	5E-05	6.2E-05		2.77E-05		3.02E-05	0.000142		5E-05	6.29E-05													TOPRIM_TopoIIA:	chromosome; cytosol [pmid	ATP binding; chromatin
893	5	4.92E-05	0	0	NF		ENSG00000125755:gSYMPK				gi	12402829	ref	NP_0	symplekin [Homo sapiens]	1274	141148	6.1	0	0		30		0	7.32E-05		0.000139		2	5.3E-05	6.67E-05		3.02E-05		2.56E-05	0.000121		4.53E-05	5.23E-05															
894	5	4.83E-05	0	0	NF		ENSG00000121310:gACOT9				gi	8126547	ref	NP_0	acyl-Coenzyme A thioesterase	448	50195	6.7	0	0		17	0.594		0	5.21E-05		0.000117		2	2.28E-05	2.66E-05		0.000109		8.57E-05	3.94E-05		7.38E-05	1.5E-05													Brown fat-inducible	mitochondrion	acetyl-CoA hydrolase
895	5	4.59E-05	0	0	NF		ENSG00000138698:gRAP1GDS1				gi	15503019	ref	NP_0	RAP1, GTP-GDP dissociatio	608	66388	5.3	0	0		37		0	0.00153		8.72E-05		2	6.02E-05	7.45E-05		3.69E-05		2.68E-05	8.31E-05		3.17E-05	2.61E-05															
896	5	4.58E-05	0	0	NF		ENSG00000101936:gMACHD1				gi	14883935	ref	NP_0	structural maintenance of ch	2056	226272	7.3	0	0		25		0	9.31E-05		7.93E-05		2	4.31E-05	1.91E-05		4.44E-05		0.00013	1.91E-05		4.35E-05	2.01E-05															
897	5	4.4E-05	1	2.04E-06	21.53212		ENSG00000148843:gPDCD11				gi	7098054	ref	NP_0	pre-mrna cleavage complex	1871	208699	8.9	0	0		0		0	2.46E-05		3.78E-05		2	1.57E-05	1.16E-05		0.000108		2.06E-05	0.000164		1.64E-05	7.24E-05		1.64E-05		0	7.24E-05								Tetratricopeptide repeat	intracellular; nucleus [pmid	RNA binding; transcription
898	5	4.35E-05	0	0	NF		ENSG00000144895:gEIF2A				gi	54873624	ref	NP_0	eukaryotic translation initiatio	585	64990	8.9	0	0		16	0.049		0	0.00012		3.02E-05		2

rk	NEs detected # out of 10 runs	NEs dNSAF_A VG	MMs detected # out of 8 runs	MMs dNSAF_A VG	Detected in Mitochondria	ORTHO_GROUP	GENE_NAME	NET_NAME	Location & Gene Expression Data	Locus	Description	Length	MW	pI	PredHel	TMHMM_Topology	SIGNALP_HMM_TYPE (S=signal; A= Anchor; Q= none)	SIGNALP_HMM_POS	SIGNALP_HMM_PROB
981	4	0.000222	0	0 NF		ENSGO00001094889	CAP2A1			gi|5453597|ref|NP_0	F-actin capping protein alpha	286	32923	5.7	0	o	Q	0	0
982	4	0.00022	0	0 NF		ENSGO00000197756	RPL37A			gi|4506643|ref|NP_0	ribosomal protein L37a [Hom	92	10275	10.4	0	o	Q	20	0
983	4	0.000219	0	0 NF		ENSGO00000152819	TPI1			gi|4507649|ref|NP_0	triosephosphate isomerase 1	249	26869	6.5	0	o	Q	37	0.013
984	4	0.000217	0	0 NF		ENSGO00000110107	PPP1F19			gi|7657381|ref|NP_0	PRP19/PSO4 pre-mRNA pro	504	55181	6.6	0	o	Q	20	0
985	4	0.000213	0	0 NF		ENSGO00000117450	PRDX1			gi|3245526|ref|NP_0	peroxiredoxin 1 [Homo sapie	199	22110	8.1	0	o	Q	20	0
986	4	0.000213	0	0 NF		ENSGO00000145425	RPS3A			gi|4506723|ref|NP_0	ribosomal protein S3a [Hom	264	29960	9.7	0	o	Q	17	0
987	4	0.000201	0	0 NF		ENSGO00000101367	MAPRE1			gi|6912494|ref|NP_0	microtubule-associated prote	268	29999	5.1	0	o	Q	17	0
988	4	0.000197	0	0 NF		ENSGO00000117748	RPA2			gi|4506585|ref|NP_0	replication protein A2, 32kDa	270	29247	6.1	0	o	Q	22	0.001
989	4	0.000192	0	0 NF		ENSGO00000140395	WDR61			gi|13376840|ref|NP_0	WD repeat domain 61 [Homo	305	33581	5.5	0	o	Q	0	0
990	4	0.000191	0	0 NF		ENSGO00000069345	DNAJA2			gi|5031741|ref|NP_0	DnaJ subfamily A member 2	412	45746	6.5	0	o	Q	21	0
991	4	0.000191	0	0 NF		ENSGO00000182774	SYSM			gi|4507051|ref|NP_0	serpin peptidase inhibitor, clad	418	46979	6.8	0	o	Q	17	0.000891
992	4	0.00019	0	0 NF		ENSGO00000103342	GSPT1			gi|4504167|ref|NP_0	GTS 1 to S phase transition 1 [H	499	55756	5.6	0	o	Q	0	0
993	4	0.000183	0	0 NF		ENSGO00000100519	PSMC6			gi|2443016|ref|NP_0	proteasome 26S ATPase sub	389	44173	7.5	0	o	Q	0	0
994	4	0.000183	0	0 NF		ENSGO00000108012	EIF1			gi|11552945|ref|NP_0	eukaryotic translation initiatio	727	84937	5.6	0	o	Q	0	0
995	4	0.00018	0	0 NF		ENSGO00000124795	DEK			gi|4503249|ref|NP_0	DEK oncogene [Homo sapie	375	42674	8.6	0	o	Q	16	0
996	4	0.000179	0	0 NF		ENSGO00000157020	SEC13			gi|4335134|ref|NP_0	SEC13 protein [Homo sapien	322	35541	5.5	0	o	Q	0	0
997	4	0.000177	0	0 NF		ENSGO00000106605	BLVRA			gi|3358954|ref|NP_0	biliverdin reductase A [Homo	296	33428	6.4	0	o	Q	22	0.067
998	4	0.000177	0	0 NF		ENSGO00000149925	ALDOA			gi|3457712|ref|NP_0	aldolase A [Homo sapiens]	364	39420	8.1	0	o	Q	33	0.000446
999	4	0.000176	0	0 NF		ENSGO00000101271	CPSF6			gi|5901929|ref|NP_0	cleavage and polyadenylation	551	59049	6.9	0	o	Q	0	0
1000	4	0.000175	0	0 NF		ENSGO00000068831	RASGRP2			gi|14915872|ref|NP_	RAS guanyl releasing protein	609	69249	7.8	0	o	Q	24	0
1001	4	0.000174	0	0 NF		ENSGO00000166986	MARS			gi|14043022|ref|NP_	methionyl-RNA synthetase [	900	101116	6.2	0	o	S	25	0.821
1002	4	0.000174	0	0 NF		ENSGO00000125364	SSR1			gi|21614748|ref|NP_0	signal sequence receptor, alp	434	49717	6.7	0	o	S	17	0
1003	4	0.000167	0	0 NF		ENSGO00000125414	MYH2			gi|13379263|ref|NP_	myosin, heavy chain 2, skeletal	1941	223042	5.8	0	o	Q	14	0
1004	4	0.000166	0	0 NF		ENSGO00000146729	GBAS			gi|4503937|ref|NP_0	glycosyltransferase 8 [Homo sa	288	33243	9.4	0	o	S	24	0.96
1005	4	0.000166	0	0 NF		ENSGO00000184730	APOB48R			gi|119220598|ref|NP_	apolipoprotein B48 receptor [	1088	114874	4.4	0	o	Q	34	0.07
1006	4	0.000163	0	0 NF		ENSGO00000108011	YY1			gi|4507955|ref|NP_0	YY1 transcription factor [Hom	414	44713	6.3	0	o	Q	14	0
1007	4	0.00016	0	0 NF		ENSGO00000171118	SQSB			gi|4758356|ref|NP_0	squalene synthetase binding	380	42593	8.6	0	o	Q	17	0.003
1008	4	0.000156	0	0 NF		ENSGO00000214014	CVCA2			gi|18201880|ref|NP_0	candidate tumor suppressor	227	24418	6.9	0	o	Q	19	0.134
1009	4	0.000156	0	0 NF		ENSGO00000105419	MEIS3			gi|5786310|ref|NP_0	Meis1, myeloid ecotropic vira	421	46135	5.3	0	o	Q	31	0.002
1010	4	0.000152	0	0 NF		ENSGO00000156110	ADK			gi|32484973|ref|NP_0	adenosine kinase isoform a [	345	38703	6.7	0	o	Q	22	0.001
1011	4	0.00015	0	0 NF		ENSGO00000162645	GBP2			gi|38327558|ref|NP_0	guanylate binding protein 2, i	591	67209	5.7	0	o	Q	20	0.001
1012	4	0.000015	2.63E-05	5.768902		ENSGO00000138378	GDI1			gi|4503971|ref|NP_0	GDP dissociation inhibitor 1	447	50633	5.8	0	o	Q	21	0.002
1013	4	0.000147	0	0 NF		ENSGO00000072062	PRKACA			gi|4506055|ref|NP_0	cAMP-dependent protein kin	351	40590	5.8	0	o	Q	0	0.000462
1014	4	0.000144	0	0 NF		ENSGO00000175463	TBC1D10C			gi|38346348|ref|NP_	TBC1 domain family, membe	446	49712	8.8	0	o	Q	0	0.000364
1015	4	0.000144	0	0 NF		ENSGO00000066468	STAT1			gi|4758018|ref|NP_0	signal transducer and activator	309	33697	7.3	0	o	Q	25	0.000525
1016	4	0.000139	0	0 NF		ENSGO00000125691	RPL23			gi|4506605|ref|NP_0	ribosomal protein L23 [Homo	140	14865	10.5	0	o	S	29	0.645
1017	4	0.000139	0	0 NF		ENSGO00000171188	SQSB			gi|15387094|ref|NP_	squalene synthetase binding	280	32093	8.6	0	o	Q	29	0.987
1018	4	0.000139	1	2.52E-06	55.1025	ENSGO00000135316	SYNCRIP			gi|23397427|ref|NP_	synaptotagmin binding, cytop	623	69633	8.6	0	o	Q	0	0
1019	4	0.000135	0	0 NF		ENSGO00000100941	PNN			gi|33356174|ref|NP_0	pinin, desmosome associates	717	81614	7.2	0	o	Q	0	0.00339
1020	4	0.000134	2	8.57E-06	15.66123	ENSGO00000141510	TR1A			gi|50315669|ref|NP_0	thyroid hormone receptor, alp	376	41027.6	6.6	0	o	Q	20	0
1021	4	0.000134	0	0 NF		ENSGO00000130810	TPPAN-P2RY11			gi|47174861|ref|NP_0	peter pan homolog [Homo sa	473	53194	10.1	0	o	Q	41	0.001
1022	4	0.000132	0	0 NF		ENSGO00000163468	CCT3			gi|8876148|ref|NP_0	chaperonin containing TCP1,	544	60463	5.5	0	o	Q	0	0
1023	4	0.000132	0	0 NF		ENSGO00000134152	GPC3			gi|21614839|ref|NP_0	glypican 3 precursor [Homo s	580	70109	7.4	0	o	Q	18	0.000467
1024	4	0.00013	0	0 NF		ENSGO00000165025	SYK			gi|21361553|ref|NP_0	spleen tyrosine kinase [Hom	635	72068	8.2	0	o	Q	26	0
1025	4	0.000127	1	1.39E-05	9.145446	ENSGO00000134982	PKIP1			gi|19923930|ref|NP_0	pre-B-cell leukemia homeob	731	80663	5.8	0	o	Q	24	0
1026	4	0.000125	0	0 NF		ENSGO00000176826	DAZAP1			gi|25470886|ref|NP_0	DAZ associated protein 1 iso	407	43383	8.6	0	o	Q	23	0
1027	4	0.000125	0	0 NF		ENSGO00000134001	EIF2S1			gi|4758256|ref|NP_0	eukaryotic translation initiatio	315	36112	5.1	0	o	Q	0	0
1028	4	0.000124	0	0 NF		ENSGO00000144445	ACY			gi|9951915|ref|NP_0	aminoacylase 1 isoform a hy	432	47776	8.3	0	o	Q	22	0.001
1029	4	0.000124	0	0 NF		ENSGO00000148908	RGS10			gi|5269475|ref|NP_0	regulator of G-protein signali	181	21210	7.5	0	o	Q	0	0
1030	4	0.000122	0	0 NF		ENSGO00000332.2	SAR1A			gi|9910542|ref|NP_0	SAR1a gene homolog 1 [Hom	198	22367	8.7	0	o	Q	27	0.002
1031	4	0.000121	0	0 NF		ENSGO00000146021	RPL7L1			gi|50053972|ref|NP_0	ribosomal protein L7-like 1 [H	246	28661	10.5	0	o	S	0	0
1032	4	0.00012	2	9.24E-06	12.9689	ENSGO00000173959	RBM14			gi|5454064|ref|NP_0	RNA binding motif protein 14	669	69492	9.7	0	o	Q	31	0.001
1033	4	0.000119	0	0 NF		ENSGO00000109556	PTLG2			gi|4758668|ref|NP_0	gamma-glutamyltransferase 1	562	62244	5.5	0	o	Q	0.00027	0.95
1034	4	0.000116	0	0 NF		ENSGO00000145907	G3BP1			gi|38327552|ref|NP_0	Ras-GTPase-activating protei	466	52164	5.5	0	o	Q	19	0
1035	4	0.000116	0	0 NF		ENSGO00000194153	PRTN3			gi|7136168|ref|NP_0	proteinase 3 (serine proteina	256	27807	8.3	0	o	S	26	1
1036	4	0.000115	0	0 NF		NA:ENSMUSG00022	PPP2R1A			gi|45062121|ref|NP_0	protein phosphatase 1,B6 [Homo	145	17296	10.6	0	o	Q	0	0
1037	4	0.000115	0	0 NF		ENSGO00000162704	ARPC5			gi|5031593|ref|NP_0	actin related protein 2/3 com	151	16320	5.7	0	o	Q	0	0.00154
1038	4	0.000114	0	0 NF		ENSGO00000168817	PPA1			gi|11050644|ref|NP_0	pyrophosphatase 1 [Homo sa	289	32520	5.8	0	o	Q	0	0
1039	4	0.000114	0	0 NF		ENSGO00000185627	PSMD13			gi|15750219|ref|NP_	proteasome 26S non-ATPase	376	42946	5.8	0	o	Q	20	0
1040	4	0.000111	0	0 NF		ENSGO00000159339	PADI4			gi|6912576|ref|NP_0	peptidyl arginine deiminase,	663	74095	6.6	0	o	Q	33	0.483
1041	4	0.00011	0	0 NF		ENSGO00000169674	BAIAP2			gi|10346135|ref|NP_0	brain-specific angiogenesis i	327	37031	5.6	0	o	Q	0	0
1042	4	0.00011	1	1.21E-05	0.090467	ENSGO00000068120	COASY			gi|10227611|ref|NP_0	coenzyme A synthase isoform	564	62325	7	0	o	S	24	0.997
1043	4	0.000108	0	0 NF		ENSGO00000108559	NUP88			gi|24497453|ref|NP_0	nucleoporin 88kDa [Homo sa	741	83542	5.7	0	o	Q	31	0
1044	4	0.000108	0	0 NF		ENSGO00000110063	DCPS			gi|7661734|ref|NP_0	mRNA decapping enzyme [H	337	38609	6.4	0	o	Q	0	0
1045	4	0.000105	1	1.27E-05	0.277605	ENSGO00000185129	PURA			gi|5032007|ref|NP_0	purine-rich element binding p	322	34911	6.4	0	o	Q	23	0.009
1046	4	0.000105	1	4.5E-06	23.23836	NA:ENSMUSG00024	PSMD5			gi|48268552|ref|NP_0	proteasome 26S non-ATPase	504	56104	5.5	0	o	Q	16	0.053
1047	4	0.000104	0	0 NF		ENSGO00000132382	MYBBP1A			gi|15769449|ref|NP	MYB binding protein 1a isofo	1328	148854	9.3	0	o	Q	21	0
1048	4	0.000101	1	2.18E-06	46.29048	ENSGO00000205339	IPO7			gi|5453998|ref|NP_0	importin 7 [Homo sapiens]	1038	119516	4.8	0	o	Q	22	0
1049	4	0.000101	0	0 NF		ENSGO00000125970	RALY			gi|13964803|ref|NP_0	RNA binding protein (autoant	290	33084	9.6	0	o	Q	0	0
1050	4	0.0001	0	0 NF		ENSGO00000159692	CTBP1			gi|4557497|ref|NP_0	C-terminal binding protein 1	440	47535	6.8	0	o	Q	27	0
1051	4	9.92E-05	0	0 NF		ENSGO00000244682	PAFAH1B3			gi|4505637|ref|NP_0	platelet-activating factor acet	231	25734	6.8	0	o	Q	0	0
1052	4	9.86E-05	0	0 NF		ENSGO00000197915	HRNR			gi|57864582|ref|NP_	hornerin [Homo sapiens]	2850	282389	10	0	o	Q	20	0.019
1053	4	9.77E-05	0	0 NF		ENSGO00000134602	MST4			gi|1501188|ref|NP_	serine/threonine protein kina	416	46529	5.3	0	o	Q	19	0.004
1054	4	9.77E-05	0	0 NF		ENSGO00000177663	RPATAL1			gi|13129040|ref|NP_	ribosomal transversion associated	753	86882	8	0	o	Q	47	0.001
1055	4	9.62E-05	1	3.47E-06	27.73937	ENSGO00000188883	USP39			gi|56550051|ref|NP_0	ubiquitin specific protease 39	565	65381	8.9	0	o	Q	0	0
1056	4	9.33E-05	1	5.19E-06	17.978	ENSGO00000164936	PSAP			gi|7019957|ref|NP_0	vacuolar protein sorting factor	437	46859	7.8	0	o	Q	17	0
1057	4	9.31E-05	0	0 NF		ENSGO00000170379	FAM139A			gi|27344979|ref|NP_0	hypothetical protein LOC285	845	91978	7.3	0	o	Q	19	0.853
1058	4	9.24E-05	0	0 NF		ENSGO00000160194	NDUFV3			gi|48255924|ref|NP_0	NADH-ubiquinone oxidoredu	473	50984	9.2	0	o	Q	39	0.071
1059	4	9.15E-05	1	1.02E-05	9.935403	ENSGO00000172936	SEIF			gi|7704433|ref|NP_0	eukaryotic translation initiatio	564	66727	5.3	0	o	Q	0	0
1060	4	9.14E-05	0	0 NF		ENSGO00000090660	FKBP5			gi|4758384|ref|NP_0	FK506 binding protein 5 [Hor	457	51212	5.9	0	o	Q	0	0
1061	4	8.85E-05	0	0 NF		ENSGO00000159753	RLTPR			gi|46392157|ref|NP_0	RGD motif, leucine rich repea	1435	154668	6.8	0	o	Q	38	0
1062	4	8.73E-05	0	0 NF		ENSGO00000135929	SLSP1			gi|10804979|ref|NP_0	histone 3 mRNA 3 prime exon	339	37192	4.7	0	o	Q	0	0
1063	4	8.59E-05	0	0 NF		ENSGO00000116791	CRYZ			gi|13236495|ref|NP_0	crystallin, zeta [Homo sapien	329	35207	8.4	0	o	Q	20	0
1064	4	8.44E-05	0	0 NF		ENSGO00000114416	PPP6C			gi|5902639|ref|NP_0	protein phosphatase 6, catali	305	35144	5.7	0	o	Q	0	0
1065	4	8.35E-05	0	0 NF		ENSGO00000135842	FAM129A			gi|16757970|ref|NP_0	protein isoform a [Homo sapi	928	103135	4.8	0	o	Q	15	0
1066	4	8.33E-05	0	0 NF		ENSGO00000176393	RNPEP			gi|40316915|ref|NP_0	arginyl aminopeptidase (amin	650	72596	5.8	0	o	Q	29	0.013
1067	4	8.32E-05	0	0 NF		ENSGO00000145614	SH1L			gi|17439969|ref|NP_0	Src-3 like-protein isoform 2 [	360	39649	8.1	0	o	Q	0	0
1068	4	8.17E-05	1	4.52E-06	18.0756	ENSGO00000161057	PSMC2			gi|4506209|ref|NP_0	proteasome 26S ATPase sub	433	48634	5.9	0	o	Q	0	0
1069	4	8.06E-05	0	0 NF		ENSGO00000168888	STAT6			gi|2397678|ref|NP_0	signal transducer and activat	847	94135	6.2	0	o	Q	56	0
1070	4	7.83E-05	0	0 NF		ENSGO00000137775	Cnr38			gi|15877387|ref|NP_0	cannabinoid receptor interac	643	72049	6.1	0	o	Q	28	0
1071	4	7.77E-05	0	0 NF		ENSGO00000182270	AATF			gi|7657013|ref|NP_0	apoptosis antagonizing trans	560	63133	4.9	0	o	Q	23	0.205
1072	4	7.62E-05	0	0 NF		ENSGO00000184678	HDAC1			gi|13128860|ref|NP_0	histone deacetylase 1 [Homo	482	55092	5.1	0	o	Q	0	0
1073	4	7.5E-05	0	0 NF		ENSGO00000146476	C6orf211			gi|13375746|ref|NP_	hypothetical protein LOC796	441	51172	5.8	0	o	Q	18	0.021
1074	4	7.37E-05	1	9.05E-06	8.149434	ENSGO00000143368	SF3B4			gi|5032069|ref|NP_0	splicing factor 3b, subunit 4 [	424	44386	8.6	0	o	Q	0	0
1075	4	7.35E-05	0	0 NF		ENSGO00000184702	PKAR1A			gi|4713258|ref|NP_0	protein kinase, cAMP-depend	381	42800	5.7	0	o	Q	15	0
1076	4	7.16E-05	0	0 NF		ENSGO00000089280	FUS			gi|4826734|ref|NP_0	fusion (involved in t(12;16) in	526	53428	9.4	0	o	Q	25	0
1077	4	7.13E-05	0	0 NF		ENSGO00000135558	MRPL4			gi|22547139|ref|NP_0	mitochondrial ribosomal prot	332	37511	9.2	0	o	Q	32	0.215
1078	4	7.07E-05	1	1.12E-05	8.332259	ENSGO00000087191	PSMC5			gi|24497435|ref|NP_0	proteasome 26S ATPase sub	406	45626	7.5	0	o	Q	0	0
1079	4	7.06E-05	1	2.86E-06	24.64327	ENSGO00000108013	ACIN1			gi|7662238|ref|NP_0	apoptotic chromatin condens	1341	151887	6.4	0	o	Q	23	0.005
1080	4	7.03E-05	0	0 NF		ENSGO00000010271	BTK			gi|4557377|ref|NP_0	Bruton agammaglobulinemia	659	76281	7.8	0	o	Q	17	0.022
1081	4	6.98E-05	0	0 NF		ENSGO00000077809	GTF2I			gi|14670350|ref|NP_	general transcription factor II	998	112416	6.4	0	o	Q	20	0
1082	4	6.93E-05	0	0 NF		ENSGO00000129351	ILF3			gi|24234750|ref|NP_0	interleukin enhancer binding	894	95339	8.8	0	o	Q	0	0.000181
1083	4	6.92E-05	0	0 NF		ENSGO00000129173	TNPO3			gi|9912734|ref|NP_0	transportin 3 [Homo sapiens]	923	94203	5.6	0	o	Q	18	0.012
1084	4	6.81E-05	0	0 NF		ENSGO00000100353	EIF3D			gi|4503523|ref|NP_0	eukaryotic translation initiatio	548	63973	6	0	o	Q	20	0
1085	4	6.8E-05	0	0 NF		ENSGO00000164221	ZFP1			gi|51745301|ref|NP_0	zinc finger protein, subfamily	519	61183	6.4	0	o	Q	0	0
1086	4	6.74E-05	0	0 NF		ENSGO00000487400	CUGBP2			gi|13415288|ref|NP_0	CUG triplet repeat, RNA bind	521	55732	8.6	0	o	Q	18	0
1087	4	6.74E-05	0	0 NF		ENSGO00000148121	GYS1			gi|31542868|ref|NP_0	glycogen synthase 1 (muscle	737	83786	6.2	0	o	Q	16	0
1088	4	6.72E-05	0	0 NF		ENSGO00000164996	CSTF1			gi|38257157|ref|NP_0	cleavage stimulation factor 3	214	23090	5.4	0	o	Q	29	0
1089	4	6.65E-05	0	0 NF		ENSGO00000331787	SUBA6			gi|15041996|ref|NP_0	ubiquitin-activating enzyme E	1052	117970	6.1	0	o	Q	18	0
1090	4	6.64E-05	0	0 NF		ENSGO00000182448	NPLOC4			gi|57426879|ref|NP_0	nuclear protein localization 4	608	68120	6.4	0	o	Q	21	0
1091	4	6.63E-05	0	0 NF		ENSGO00000100401	ERANGAP1			gi|22064119|ref|NP_0	ran GTPase activating prote	587	63542	4.7	0	o	Q	24	0
1092	4	6.58E-05	0	0 NF		ENSGO00000153310	FAM49B			gi|42734438|ref|NP_0	hypothetical protein LOC515	324	36746	6.1	0	o	Q	16	0.001
1093	4	6.57E-05	0	0 NF		ENSGO00000134324	STS3			gi|3999550|ref|NP_0	integrator complex subunit 3	1042	118503	6.5	0	o	Q	21	0.858
1094	4	6.55E-05	0	0 NF		ENSGO00000127779	ALOX5			gi|4502057|ref|NP_0	arachidonate 5-lipoxygenase	674	77983	5.8	0	o	Q	17	0.031
1095	4	6.45E-05	0	0 NF		ENSGO00000180843	KIAA1618			gi|66529203|ref|NP_0	hypothetical protein LOC577	1063	118436	5.7	0	o	Q	0	0
1096	4	6.45E-05	0	0 NF		ENSGO00000186847	SWSAP1			gi|14853862|ref|NP_0	SWI/SNF-related matrix-asso	510	57779	9.6	0	o	S	27	0.87
1097	4	6.44E-05	0	0 NF		ENSGO00000104814	MAP4K1			gi|10611908|ref|NP	mitogen-activated protein kin	821	90425	8.2	0	o	Q	0	0
1098	4	6.42E-05	0	0 NF		ENSGO00000133833	ARS2			gi|33383233|ref|NP_0	arsenic resistance protein 2	796	91325	6.6	0	o	Q	0	0
1099	4	6.4E-05	0	0 NF		ENSGO00000186541	DDX5			gi|4758138|ref|NP_0	DEAD (Asp-Glu-Ala-Asp) boc	614	69148	8.9	0	o	Q	27	0
1100	4	6.35E-05	0	0 NF		ENSGO00000114445	RFC5			gi|6677723|ref|NP_0	replication factor C 5 isoform	340	38497	7.2	0	o	Q	0	0
1101	4	6.29E-05	0	0 NF		ENSGO00000175115	LOC197322			gi|28372537|ref|NP_0	ATP-dependent RNA helicase	576	64101.8	8.1	0	o	Q	25	0.873
1102	4	6.08E-05	0	0 NF		ENSGO00000117676	RPS6KA1			gi|20149547|ref|NP_0	ribosomal protein S6 kinase,	735	82723	7.8	0	o	Q	24	0.001
1103	4	6.04E-05	0	0 NF		ENSGO00000182463	ANXA3			gi|4482643|ref|NP_0	annexin A3 [Homo sapiens]	323	36235	5.9	0	o	Q	0	0
1104	4	6.01E-05	0	0 NF		ENSGO00000101557	USP14			gi|4827050|ref|NP_0	ubiquitin specific protease 14	494	56069	5.3	0	o	Q	45	0
1105	4	6.01E-05	0	0 NF		ENSGO00000197872	EAM48A			gi|13540580|ref|NP_	family with sequence similarit	323	37313	6	0	o	Q	0	0
1106	4	5.98E-05	0	0 NF		ENSGO00000184220	CTC73			gi|40016648|ref|NP_0	hypothetical protein [Homo sapiens]	531	61275	6.4	0	o	Q	0	0
1107	4	5.97E-05	0	0 NF		ENSGO00000125458	NT5C			gi|7657033|ref|NP_0	5',3'-nucleotidase, cytosolic [	201	23383	6.6	0	o	Q	17	0.012
1108	4	5.77E-05	0	0 NF		ENSGO00000136518	ACTL6A			gi|4757718|ref|NP_0	actin-like 6A isoform 1 [Hom	429	47461	5.6	0	o	Q	29	0.001
1109	4	5.75E-05	0	0 NF		ENSGO00000163164	RNF5			gi|10677734|ref|NP_0	ring finger protein 5, isoform	599	67163	4.8	0	o	Q	0	0
1110	4	5.71E-05	0	0 NF		ENSGO00000080611	AARS			gi|10914542|ref|NP_0	alanyl-tRNA synthetase [Hom	968	106810	5.5	0	o	Q	0	0
1111	4	5.65E-05	0	0 NF		ENSGO00000108264	DDX54			gi|51094101|ref|NP_0	DEAD (Asp-Glu-Ala-Asp) box	881	98530	9.1	0	o	Q	0	0
1112	4	5.54E-05	0	0 NF		ENSGO00000102882	MAPK3			gi|15813850|ref|NP_0	mitogen-activated protein kin	356	38275	6.2	0	o	Q	20	0.002
1113	4	5.39E-05	0	0 NF		ENSGO00000125817	CENPB			gi|21735415|ref|NP_0	centromere protein B [Homo	599	65171	4.6	0	o	Q	0	0
1114	4	5.39E-05	0	0 NF		ENSGO00000118785	BIRC4			gi|4021781|ref|NP_0	baculoviral IAP repeat-contain	631	76777	6.8	0	o	Q	0	0.088
1115	4	5.37E-05	0	0 NF		ENSGO00000374741	NSUN2			gi|39995082|ref|NP_0	NOL1/NOP2/Sun domain fam	767	86471	6.8	0	o	Q	0	0

rk	NEs detected # out of 10 runs	NEs dNSAF_AVG	MMs detected # out of 8 runs	MMs dNSAF_AVG	NEs:MMs	Detected in Mitochondria	ORTHO_GROUP	GENE_NAME	NET_NAME	Location & Gene Expression Data	Locus	Description	Length	MW	pI	PredHel	TMHMM_Topology	SIGNALP_HMM_TYPE (S=signal; A= Anchor; Q= none)	SIGNALP_HMM_POS	SIGNALP_HMM_PROB	RESTING LYMPHOCYTES NEs: HsNaOH-NE_NT_lymphocytes_CNBr_TI_1_dNSAF	HsNaOH-NE_NT_lymphocytes_TI_1_dNSAF	HsNaOH-NE_NT_lymphocytes_PK_1_dNSAF	HsSD-NE_NT_lymphocytes_TI_1_dNSAF	HsSD-NE_NT_lymphocytes_PK_1_dNSAF	NT-dNEs Detected # Out of 5	NT-dNEs dNSAF AVG	NT-dNEs dNSAF SDV	PHA-TREATED LYMPHOCYTES NEs: HsNaOH-NE_PHA_lymphocytes_CNBr_TI_1_dNSAF	HsNaOH-NE_PHA_lymphocytes_TI_1_dNSAF	HsSD-NE_PHA_lymphocytes_TI_1_dNSAF	HsSD-NE_PHA_lymphocytes_PK_1_dNSAF	PHA-dNEs Detected # Out of 5	PHA-dNEs dNSAF AVG	PHA-dNEs dNSAF SDV	MMs: MmNaOH-MM_liver_CNBrTi_1_dNSAF	MmNaOH-MM_liver_CNBrTi_2_dNSAF	RnNaOH-MM_liver_Ti_1_dNSAF	RnNaOH-MM_liver_Ti_2_dNSAF	RnNaOH-MM_liver_Ti_3_dNSAF	RnNaOH-MM_liver_Ti_4_dNSAF	RnNaOH-MM_liver_PK_1_dNSAF	RnNaOH-MM_liver_PK_2_dNSAF	Region_Note	GO_Component	GO_Function
1128	4	4.93E-05	0	0	NF		ENSGO00000079924	K4B2			gi	55770906	ref	NP_	KPA binding protein 2 [Homo	855	100010	6.2	0	0		0	0	0	0	0	0	4.13E-05	1	1.03E-05	2.07E-05	0	2.62E-05	0	5.75E-05	0.000269	0	0	0	0	0	0	0	0	0	0	Tetratricopeptide repeat	intracellular; nucleus [pmid	protein binding [pmid
1129	4	4.84E-05	0	0	NF		ENSGO00000100029	PES1			gi	7657455	ref	NP_	pescadillo homolog 1, contain	588	68003	7.3	0	0		0	0	0	0	0	0	0	0	0.000153	5.55E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Pescadillo N-terminus. This	intracellular; nucleolus;	
1130	4	4.79E-05	0	0	NF		ENSGO00000176022	PHKG2			gi|56554405|ref|NP_	phosphorinositide-3-kinase, c	1044	119473	7.2	0	0		33	0	0.000159	0	0	0	0	1	3.91E-05	7.82E-05	0	1.56E-05	0.000147	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1131	4	4.74E-05	0	0	NF		ENSGO00000278691	SHD2A			gi	45030633	ref	NP_	SH2 domain protein 2A [Hom	389	42907	7.4	0	0		0	0	0.000152	0	4.54E-05	2	4.13E-05	0.000185	0	0	0	0	0	0	9.87E-05	0	0	0	0	0	0	0	0	0	Src homology 2 domains;	cytoplasm [pmid 9468509];	protein binding [pmid
1132	4	4.73E-05	0	0	NF		ENSGO00000157881	PANK4			gi	8922665	ref	NP_	pantothenate kinase 4 [Homo	773	85991	6.3	0	0		16	0	0.000158	0	2.29E-05	2	2.83E-05	4.28E-05	0	0.000116	0	0	0	0	0.000149	0	0	0	0	0	0	0	0	0	Fumble. Fumble is required		ATP binding; nucleotide
1133	4	4.72E-05	0	0	NF		ENSGO00000052749	RRP12			gi	15987121	ref	NP_	ribosomal RNA processing 1	1297	143732	8.8	0	0		24	0	1.8E-05	0	9.53E-05	2	2.63E-05	4.55E-05	0	8.65E-05	0	0	0	0	0.000178	0	0	0	0	0	0	0	0	0	NUC173 domain. This is	nucleus [pmid 15146434].	binding
1134	4	4.68E-05	0	0	NF		ENSGO00000123143	PKN1			gi	47132589	ref	NP_	protein kinase N1 isoform 2 [	942	103932	6.4	0	0		28	0.108	0	0	7.5E-05	1	1.88E-05	3.75E-05	0	0.000119	0	1.73E-05	0.000163	0	0	0	0	0	0	0	0	0	0	Protein kinase C-related		ATP binding; nucleotide
1135	4	4.61E-05	0	0	NF		ENSGO00000190055	GRK6			gi	51896035	ref	NP_	G protein-coupled receptor k	589	67258	8.5	0	0		19	0.001	0	7.92E-05	0	0.00012	2	4.98E-05	5.99E-05	0	0.000114	0	5.54E-05	0	0	0	0	0	0	0	0	0	0	Regulator of G protein	membrane	ATP binding; G-protein
1136	4	4.47E-05	0	0	NF		ENSGO00000154475	XPOT			gi	8051639	ref	NP_	tRNA exportin [Homo sapien	962	109954	5.4	0	0		16	0	2.42E-05	0.000195	1.84E-05	3	5.95E-05	9.11E-05	0	0	0	0	0	0	0.00012	1	2.99E-05	5.99E-05	0	0	0	0	0	0	Exportin 1-like protein. The	nucleus	binding; tRNA binding [pmid
1137	4	4.38E-05	0	0	NF		ENSGO00000087365	SFSB2			gi	55749531	ref	NP_	splicing factor 3B subunit 2 [	895	100228	5.7	0	0		35	0	0	0	9.87E-05	1	2.47E-05	4.93E-05	0	5.01E-05	0	7.29E-05	0.000129	0	0	0	0	0	0	0	0	0	0	Domain of unknown	nucleus; spliceosome complex	DNA binding
1138	4	4.32E-05	0	0	NF		ENSGO00000108654	SFRS18			gi	15435050	ref	NP_	0001740 splicing factor, arg	711	79551	7.3	0	0		29	0.001	0	0	0	0	1	4.32E-05	8.64E-05	0	4.47E-05	0	2.33E-05	5.4E-05	0	0	0	0	0	0	0	0	0	0			
1139	4	4.19E-05	1	3.43E-06	12.22772		ENSGO00000113643	RARS			gi	15149476	ref	NP_	arginyl-tRNA synthetase [Ho	660	75379	6.7	0	0		16	0.001	0	3.53E-05	0	2.68E-05	2	1.55E-05	1.83E-05	0	0	0	9.89E-05	0.000174	0	2.74E-05	0	0	0	0	0	0	0	DALR anticodon binding	cytoplasm [pmid 7590355];	arginine-tRNA ligase activity;
1140	4	4.1E-05	0	0	NF		ENSGO00000058272	PPP1R12A			gi	45053177	ref	NP_	protein phosphatase 1, regul	1030	115281	5.4	0	0		54	0	2.26E-05	0	0.000171	2	4.85E-05	8.27E-05	0	2.18E-05	0	0	0.000112	2	3.34E-05	5.33E-05	0	0	0	0	0	0	0	ankyrin repeats; ankyrin	actin cytoskeleton	signal transducer activity
1141	4	4.07E-05	1	4.05E-06	10.04783		ENSGO00000164776	SUPV3L1			gi	3878812	gb	AAC	helicase [Homo sapiens]	1485	77126	9.1	0	0		21	0.006	0	1.57E-05	0	0.000107	2	3.51E-05	6.26E-05	0	0	0	2.25E-05	0.000181	0	3.24E-05	0	0	0	0	0	0	0	Superfamily I DNA and RNA		
1142	4	3.99E-05	0	0	NF		ENSGO00000179950	PUF60			gi	17298690	ref	NP_	poly-U binding splicing factor	542	58172	5.3	0	0		19	0.061	0	4.3E-05	0	0.000163	2	5.12E-05	7.7E-05	0	8.28E-05	0	3.01E-05	0	0	2.82E-05	3.99E-05	0	0	0	0	0	0	RNA recognition motif.	ribonucleoprotein complex	nucleic acid binding;
1143	4	3.96E-05	0	0	NF		ENSGO00000088835	HAGHL			gi	54890370	ref	NP_	hadrin isoform 1 [Homo sapi	881	95437	7.6	0	0		27	0	0.000132	0	0.000104	2	6.62E-05	7.88E-05	0	2.55E-05	0	1.85E-05	0	0	1.5E-05	1.3E-05	0	0	0	0	0	0	BAR domain. The BAR	cytoplasm; intracellular	aminoacyl-tRNA ligase
1144	4	3.85E-05	0	0	NF		ENSGO00000132323	ILKAP			gi	13540531	ref	NP_	integrin-linked kinase-associ	382	42907	7.1	0	0		0	0	0.000119	0	9.01E-05	2	5.23E-05	6.15E-05	0	5.72E-05	0	4.16E-05	0	0	2.47E-05	2.92E-05	0	0	0	0	0	0	Serine/threonine	hydrolase activity; kinase	protein serine/threonine
1145	4	3.77E-05	0	0	NF		ENSGO00000113163	COL4A3BP			gi	14165452	ref	NP_	alpha 3 type IV collagen bind	598	68007	5.5	0	0		0	0	3.9E-05	0	5.91E-05	2	2.45E-05	2.95E-05	0	7.5E-05	0	0	0	0	0.000128	2	5.09E-05	6.26E-05	0	0	0	0	0	0	Goodpasture antigen		binding
1146	4	3.74E-05	0	0	NF		ENSGO00000888975	HEATR5B			gi	55746742	ref	NP_	HEAT repeat containing 5B [	2071	236000	5.9	0	0		16	0.389	0	4.5E-05	0.000191	0	1.5E-05	4.5E-05	0	4.56E-05	0	9.59E-05	0	0	1.85E-05	0	0	0	0	0	0	0	0			
1147	4	3.68E-05	0	0	NF		ENSGO00000144591	GMPPA			gi	45447090	ref	NP_	GDP-mannose pyrophospho	420	46291	7.2	0	0		46	0.006	0	0.000111	0	0	1	2.78E-05	5.55E-05	0	5.34E-05	0	3.89E-05	9.14E-05	0	0	0	0	0	0	0	0	Nucleoside-diphosphate-		
1148	4	3.67E-05	0	0	NF		ENSGO00000123329	ARHGAP9			gi	12293917	ref	NP	Rho GTPase activating prote	731	81150	8.2	0	0		41	0.964	0	6.38E-05	0	2.42E-05	2	2.2E-05	3.01E-05	0	0.000153	0	0	5.25E-05	0	0	5.15E-05	7.23E-05	0	0	0	0	0	0			
1149	4	3.63E-05	0	0	NF		ENSGO00000190284	TOM1			gi	4885637	ref	NP_	VHS domain of myb1 [Homo	492	53818	4.7	0	0		16	0	9.48E-05	0	7.18E-05	2	4.17E-05	4.96E-05	0	4.56E-05	0	1.66E-05	0	0	3.81E-05	0	0	0	0	0	0	0	GAT domain. The GAT	cytosol [pmid 14613930];	protein binding [pmid
1150	4	3.58E-05	0	0	NF		ENSGO00000174243	DDX23			gi	41327771	ref	NP_	DEAD (Asp-Glu-Ala-Asp) box	820	95583	9.6	0	0		0	0	0	0	8.62E-05	1	2.15E-05	4.31E-05	0	2.74E-05	0	7.96E-05	9.36E-05	0	0	0	0	0	0	0	0	0	0	Helicase superfamily c-	nucleus; snRNP U5 [pmid	ATP binding; ATP-dependent
1151	4	3.56E-05	0	0	NF		ENSGO00000115522	RAD50			gi	16924129	ref	NP_	RAD50 homologa [Homo sapi	1312	153922	6.8	0	0		41	0.001	0	1.78E-05	0	0.000114	2	3.44E-05	5.82E-05	0	8.55E-05	0	6.22E-05	0	0	3.23E-05	4.37E-05	0	0	0	0	0	0	The catalytic domains of	chromosome; chromosome,	3'-5' exonuclease activity;
1152	4	3.57E-05	0	0	NF		ENSGO00000005007	UPF1			gi	18375673	ref	NP_	regulator of nonsense transc	1118	123036	6.7	0	0		26	0.001	0	0.000146	0	3.16E-05	2	4.44E-05	6.94E-05	0	2.01E-05	0	8.76E-05	0	0	2.69E-05	4.15E-05	0	0	0	0	0	0	DEXH-box helicases. A	chromatin [pmid 16488880];	ATP binding; ATP-dependent
1153	4	3.55E-05	0	0	NF		ENSGO00000120694	HSPH1			gi	42544159	ref	NP_	heat shock 105kD [Homo sap	858	96865	5.4	0	0		21	0.028	0	8.16E-05	0	4.12E-05	2	3.07E-05	3.91E-05	0	0.000105	0	5.71E-05	0	0	4.04E-05	5.05E-05	0	0	0	0	0	0	Hsp70 protein. Hsp70	cytoplasm [pmid 9931472]	ATP binding; nucleotide
1154	4	3.54E-05	0	0	NF		ENSGO00000163219	ARHGAP25			gi	55770989	ref	NP_	Rho GTPase activating prote	646	74239	5.4	0	0		0	0	0	7.23E-05	0	8.22E-05	2	3.86E-05	4.48E-05	0	8.96E-05	0	0	5.95E-05	0	0	3.23E-05	3.75E-05	0	0	0	0	0	0	RhoGAP. ARHGAP22_24.	intracellular	GTPase activator activity
1155	4	3.53E-05	0	0	NF		ENSGO00000055332	EIF2AK2			gi	4506103	ref	NP_	eukaryotic translation initiatio	551	62094	8.4	0	0		27	0	0	0	3.21E-05	1	8.01E-05	1.6E-05	0	8.14E-05	0	2.96E-05	0.000139	0	6.26E-05	6.12E-05	0	0	0	0	0	0	Double-stranded RNA	intracellular	ATP binding; double-strande
1156	4	3.51E-05	0	0	NF		ENSGO00000189159	SPF110			gi	17986025	ref	NP_	SP110 nuclear body protein	549	61941	8.4	0	0		27	0	8.5E-05	0	9.66E-05	2	4.54E-05	6.26E-05	0	2.07E-05	0	2.07E-05	6.99E-05	0	2.46E-05	3.31E-05	0	0	0	0	0	0	Sp100 domain. The	nucleus [pmid 7693701]	DNA binding [pmid 7693701]
1157	4	3.51E-05	0	0	NF		ENSGO00000109320	NFKB1			gi	34571232	ref	NP_	nuclear factor kappa-B, subu	969	105421	5.4	0	0		0	0	0	0.000128	0	1.31E-05	2	3.19E-05	6.38E-05	0	4.63E-05	0	6.74E-05	3.96E-05	0	3.83E-05	2.82E-05	0	0	0	0	0	0	Rel homology domain	cytoplasm [pmid 11819787];	protein binding [pmid
1158	4	3.5E-05	0	0	NF		ENSGO00000141569	TRIM65			gi	38679905	ref	NP	tripartite motif-containing 65 [	517	57353	6.7	0	0		27	0.103	0	4.51E-05	0	3.42E-05	2	1.98E-05	2.33E-05	0	0.000126	0	7.43E-05	0	0	5.01E-05	6.17E-05	0	0	0	0	0	0	RING-finger (Really		metal ion binding; protein
1159	4	3.5E-05	0	0	NF		ENSGO00000100575	SIN3A			gi	23397665	ref	NP_	transcriptional co-repressor 1	1273	145155	7.5	0	0		0	0	0	0	5.55E-05	1	1.39E-05	1.78E-05	0	1.76E-05	0	2.56E-05	0.000191	0	1.39E-05	1.8E-05	0	0	0	0	0	0	Paired amphipathic helix	nucleus	
1160	4	3.48E-05	0	0	NF		ENSGO00000188986	NELFB			gi	20070260	ref	NP_	cofactor of BRCA1 [Homo sa	580	65697	6.1	0	0		14	0	0	0	6.09E-05	1	1.52E-05	3.05E-05	0	3.87E-05	0	0.000113	6.62E-05	0	5.44E-05	4.74E-05	0	0	0	0	0	0	Cofactor of BRCA1	cytoplasm [pmid 11256614];	protein binding [pmid
1161	4	3.47E-05	0	0	NF		ENSGO00000039123	SKIV2L2			gi	39930353	ref	NP	superkiller viralicidic activity 2	1042	117761	6.7	0	0		21	0	2.24E-05	0	5.09E-05	2	1.83E-05	2.41E-05	0	0	0	9.4E-05	0.000111	2	5.11E-05	5.94E-05	0	0	0	0	0	0	DEAD-like helicases	nucleus	ATP binding; ATP-dependent
1162	4	3.45E-05	0	0	NF		ENSGO00000142534	WAPL			gi	42734325	ref	NP_	wings apart-like homolog [Ho	1190	132945	5.4	0	0		0	0	9.8E-05	0	4.45E-05	1	1.34E-05	2.68E-05	0	3.77E-05	0	0.000096	0	0	2.31E-05	4.56E-05	0	0	0	0	0	0	Wings apart-like protein.	nucleus	
1163	4	3.42E-05	0	0	NF		ENSGO00000121060	TRIM25			gi	68160937	ref	NP	tripartite motif-containing 25	630	70974	8.1	0	0		17	0.002	0	7.4E-05	0	0.000112	2	4.85E-05	5.6E-05	0	3.56E-05	0	5.18E-05	0	0	2.19E-05	2.61E-05	0	0	0	0	0	0	RING-finger (Really		metal ion binding; protein
1164	4	3.33E-05	0	0	NF		ENSGO00000166164	PRPF31			gi	40254866	ref	NP	pre-mRNA processing factor	499	55462	5.8	0	0		15	0	0	4.07E-05	0	0.000142	2	4.71E-05	5.67E-05	0	4.5E-05	0	3.27E-05	0	0	1.94E-05	2.33E-05	0	0	0	0	0	0	PUtative snoRNA binding	Cajal body [pmid 11867543];	
1165	4	3.31E-05	0	0	NF		ENSGO00000116350	ESRR54			gi	23361282	ref	NP	splicing factor, arginine/serin	494	56678	11.5	0	0		0	0	0	4.72E-05	0	3.58E-05	2	3.07E-05	2.44E-05	0	0.000182	0	0	0	0	0	1.4 5E-05	9.08E-05	0	0	0	0	0	0	RNA recognition motif.	nucleus [pmid 8321209]	nucleotide binding; RNA
1166	4	3.29E-05	0	0	NF		ENSGO00000198721	PECI			gi	45643119	ref	NP	peroxisomal D3,D2-enoyl-Co	364	40183	8.8	0	0		0	0	0	6.41E-05	0	4.85E-05	1	2.82E-05	3.31E-05	0	0	0	4.48E-05	0.000105	0	3.76E-05	4.99E-05	0	0	0	0	0	0	Acyl CoA binding protein	mitochondrion [pmid	acyl-CoA binding;
1167	4	3.25E-05	0	0	NF		ENSGO00000145824	SHB			gi	45577619	ref	NP	SH2 domain adaptor protein 2 [Homo sapi	934	104421	5.8	0	0		26	0	0	4.99E-05	0	5.01E-05	2	3.44E-05	7.13E-05	0	4.15E-05	0	4.11E-05	0	0	1.7E-05	2.46E-05	0	0	0	0	0	0	MuSTd homology 1	nucleus [pmid 7923160]	with binding; damaged DNA
1168	4	3.19E-05	0	0	NF		ENSGO00000995547	EBAZ1B			gi	14670302	ref	NP	bromodomain adjacent to zin	1483	170902	8.5	0	0		25	0	0	7.86E-05	0	9.53E-05	2	4.35E-05	5.07E-05	0	1.51E-05	0	6.6E-05	0	0	2.03E-05	3.13E-05	0	0	0	0	0	0	PHD-finger. PHD folds into	nucleus [pmid 11124022]	metal ion binding; protein
1169	4	3.16E-05	2	5.21E-06	6.064498		ENSGO00000099331	MYO9B			gi	33356170	ref	NP	myosin IXB [Homo sapiens]	2157	243398	8.8	0	0		31	0.001	0	9.73E-05	0	0.000106	2	5.09E-05	5.89E-05	0	3.12E-05	0	0	1.78E-05	0	1.22E-05	1.52E-05	0	2.34E-05	1.83E-05	0	0	0	Myosin motor domain, type	intracellular; myosin	actin binding; ATP binding;
1170	4	3.16E-05	0	0	NF		ENSGO00000164754	RAD21			gi	45453902	ref	NP_	DNA repair protein RAD21 ho	631	70386	6.4	0	0		31	0.004	0	7.39E-05	0	5.6E-05	2	3.12E-05	3.92E-05	0	7.11E-05	0	5.17E-05	0	0	1.07E-05	1.36E-05	0	0	0	0	0	0	Mitotic chromosome. A	nucleus; chromosome;	protein binding [pmid
1171	4	3.13E-05	0	0	NF		ENSGO00000106263	EIF3B			gi	83367072	ref	NP	eukaryotic translation initiatio	814	92482	5	0	0		0	0	0	0	0.000109	1	2.71E-05	5.43E-05	0	2.76E-05	0	2E-05	9.43E-05	0	3.55E-05	4.09E-05	0	0	0	0	0	0	Uncharacterized protein.	eukaryotic translation	nucleotide binding; RNA
1172	4	3.08E-05	0	0	NF		ENSGO00000165172	ARHGAP30			gi	10400666	ref	NP	Rho GTPase activating prote	890	102538	5.1	0	0		0	0	0	7.86E-05	0	1.98E-05	1	3.86E-05	3.52E-05	0	0	0	1.83E-05	0.000127	0	2.31E-05	6.23E-05	0	0	0	0	0	0	RhoGAP_CdGAP. RhoGAP	intracellular	
1173	4	3.06E-05	0	0	NF		ENSGO00000101343	CRNKL1			gi	124256489	ref	NP	crooked neck-like 1 protein [	848	100452	8	0	0		17	0	2.75E-05	0	6.25E-05	2	2.25E-05	2.96E-05	0	0	0	1.92E-05	0.000136	0	3.88E-05	6.53E-05	0	0	0	0	0	0			
1174	4	3.05E-05	0	0	NF		ENSGO00000215055	VPS16			gi	17978479	ref	NP	vacuolar protein sorting 16 is	839	94694	6.8	0	0		0	0	0	8.34E-05	0	4.21E-05	2	3.14E-05	4E-05	0	2.67E-05	0	0	9.15E-05	0	2.96E-05	4.32E-05	0	0	0	0	0	0	Vps16. N-terminal region.	cytoplasm; membrane	
1175	4	3.04E-05	0	0	NF		ENSGO00000134571	EXPO5			gi	27228637	ref	NP	exportin 5 [Homo sapiens]	1204	136161	5.8	0	0		17	0	9.94E-05	0	3.96E-05	2	4.34E-05	5.68E-05	0	1.86E-05	0	1.36E-05	0.000191	0	1.56E-05	1.93E-05	0	0	0	0	0	0	Exportin 1-like protein. The	nucleus	binding; protein binding [pmid
1176	4	2.98E-05	0	0	NF		ENSGO00000119397	CEP110			gi	87298937	ref	NP	centrosomal protein 110kDa	2325	268883	5.6	0	0		51	0.000139	3.01E-05	0	3.04E-05	2	5E-05	6.13E-05	0	3.86E-05	0	0	0	0	0	1.65E-05	1.93E-05	0	0	0	0	0	0	Chromosome segregation	centrosome [pmid 15337773];	RNA polymerase II
1177	4	2.97E-05	0	0	NF		ENSGO00000163660	CNL1			gi	49453320	ref	NP	cyclin L1 [Homo sapiens]	526	61196	10.7	0	0		25	0.977	0	8.87E-05	0	3.38E-05	2	3.08E-05	4.16E-05	0	4.27E-05	0	7.3E-05	0	0	3.08E-05	4.1E-05	0	0	0	0	0	0	Cyclin box fold. Protein	nucleus	
1178	4	2.96E-05	0	0	NF		ENSGO00000117779	NAG			gi	41393547	ref	NP	N-acetylglucosamine-amidoth	2371	268569	6	0	0		18	0.006	0	9.84E-05	0	7.46E-05	2	4.34E-05	5.08E-05	0	8.46E-05	0	0	0.00021	2	5.5E-05	0.00014	0	0	0	0	0	0	Secretory pathway protein		
1179	4	2.96E-05	0	0	NF		ENSGO00000172349	IL16			gi	14883504	ref	NP	interleukin 16 isoform 2 [Hom	1332	141752	8.1	0	0		29	0.012	0	5.25E-05	0	2.65E-05	2	1.98E-05	2.52E-05	0	8.42E-05	0	7.35E-05	0	0	3.45E-05	4.57E-05	0	0	0	0	0	0			
1180	4	2.86E-05	0	0	NF		ENSGO00000125615	SNX6			gi	8870304	ref	NP	sorting nexin 6 isoform b [Ho	418	47896	4.6	0	0		30	0.002	0	5.58E-05	0	4.23E-05	2	4.71E-05	5.67E-05	0	4.5E-05	0	3.95E-05	9.18E-05	0	2.76E-05	3.52E-05	0	0	0	0	0	0	Vps5 C terminal like. Vps5	intracellular [pmid 11279102]	intracellular transporter
1181	4	2.83E-05	0	0	NF		ENSGO00000072501	SMC1A			gi	30581135	ref	NP	structural maintenance of ch	1233	143233	7.6	0	0		0	0	0	9.46E-05	0	4.3E-05	2	3.44E-05	4.5E-05	0	0	0	2.65E-05	6.23E-05	0	2.22E-05	2.95E-05	0	0	0	0	0	0	SMC proteins Flexible	chromosome; cohesin core	ATP binding; chromatin
1182	4	2.83E-05	0	0	NF		ENSGO00000125484	GTF3C4			gi	15611965	ref	NP	general transcription factor II	822	91992	6.7	0	0		0	0	0	5.67E-05	0	2.15E-05	1	1.99E-05	2.68E-05	0	5.46E-05	0	0	9.34E-05	0	3.7E-05	4.56E-05	0	0	0	0	0	0			
1183	4	2.82E-05	0	0	NF		ENSGO00000150160	RAN			gi	24797086	ref	NP	RAN binding protein 5 [Homo	1115	125543	4.9	0	0		27	0	0	0.000105	0	3.17E-05	2	3.41E-05	6.88E-05	0	0	0	3.44E-05	0.000128	0	2.22E-05	2.98E-05	0	0	0	0	0	0	HEAT repeat. The HEAT	cytoplasm [pmid 9114010];	binding; GTPase inhibitor
1184	4	2.77E-05	0	0	NF		ENSGO00000196235	SUPT5H			gi	20149524	ref	NP	suppressor of Ty 5 homolog [	1087	121000	5.1	0	0		0	0	0	6.44E-05	0	6.5E-05	2	3.23E-05	3.73E-05	0	6.19E-05	0	3E-05	0	0	2.3E-05	2.96E-05	0	0	0	0	0	0	Aflatoxin regulatory protein.	nucleus	negative transcription
1185	4	2.75E-05	0	0	NF		ENSGO00000168455	CRCL			gi	4505529	ref	NP	Origin recognition complex su	435	50283	7.7	0	0		24	0.001	0	5.34E-05	0

rk	NEs detected # out of 10 runs	NEs dNSAF_AVG	MMs detected # out of 8 runs	MMs dNSAF_AVG	NEs:MMs	Detected in Mitochondria	ORTHO_GROUP	GENE_NAME	NET_NAME	Location & Gene Expression Data	Locus	Description	Length	MW	pI	PredHel	TMHMM_Topology	SIGNALP_HMM_TYPE (S= signal; A= Anchor; Q= none)	SIGNALP_HMM_POS	SIGNALP_HMM_SPROB
1275	3	0.000124	0	0	INF		ENSG00000089220:	PEBP1			gi|4505621|ref|NP_0	prostatic binding protein [Hor	187	21057	7.5	0	o	Q	16	0
1276	3	0.000124	0	0	INF		ENSG00000142634:	EFHD2			gi|20149675|ref|NP_	EF-hand domain family, mem	240	26697	5.2	0	o	Q	45	0
1277	3	0.000122	0	0	INF		ENSG00000104522:	TSTA3			gi|4507709|ref|NP_0	tissue specific transplantation	321	35893	6.6	0	o	Q	29	0.034
1278	3	0.000116	0	0	INF		ENSG00000152795:	HNRPDL			gi|14110407|ref|NP_	heterogeneous nuclear ribon	420	46437	9.6	0	o	S	51	0.814
1279	3	0.000114	0	0	INF		ENSG00000021355:	SERPINB1			gi|13489087|ref|NP_	serine (or cysteine) proteinas	379	42742	6.3	0	o	Q	25	0.015
1280	3	0.000112	0	0	INF		ENSG00000099817:	POLR2E			gi|14589951|ref|NP_	DNA directed RNA polymera	210	24611	6	0	o	Q	0	0
1281	3	0.000112	0	0	INF		ENSG00000178307:	TMEM11			gi|4505901|ref|NP_0	transmembrane protein 11 [H	192	21541	7.3	0	o	Q	26	0.013
1282	3	0.000109	0	0	INF		ENSG00000101109:	STK4			gi|5454096|ref|NP_0	serine/threonine kinase 4 [Ho	487	55630	5.1	0	o	Q	0	0
1283	3	0.000106	0	0	INF		ENSG00000162521:	RBBP4			gi|5032027|ref|NP_0	retinoblastoma binding protei	425	47656	4.9	0	o	Q	0	0
1284	3	0.000105	0	0	INF		ENSG00000029363:	BCLAF1			gi|117938251|ref|NP	BCL2-associated transcriptio	869	100232	10	0	o	Q	0	0
1285	3	0.000103	0	0	INF		ENSG00000105669:	COPE			gi|31542319|ref|NP_	epsilon subunit of coatomer p	308	34482	5.1	0	o	Q	15	0
1286	3	0.000103	0	0	INF		ENSG00000161217:	PCYT1A			gi|31543385|ref|NP_	phosphate cytidylyltransferas	367	41731	7.3	0	o	Q	0	0
1287	3	0.000103	0	0	INF		ENSG00000060688:	WDR57			gi|115298668|ref|NP	WD repeat domain 57 (U5 sr	357	39311	8.1	0	o	Q	37	0.005
1288	3	0.000102	1	1.39E-05	7.355007		ENSG00000111726:	CMAS			gi|8923900|ref|NP_0	cytidine 5'-monophosphate N	434	48379	7.9	0	o	Q	58	0.002
1289	3	0.0001	0	0	INF		ENSG00000183207:	RUVBL2			gi|5730023|ref|NP_0	RuvB-like 2 [Homo sapiens]	463	51157	5.6	0	o	Q	0	0
1290	3	9.97E-05	0	0	INF		ENSG00000154473:	BUB3			gi|4757880|ref|NP_0	BUB3 budding uninhibited by	328	37155	6.8	0	o	Q	42	0
1291	3	9.68E-05	1	1.37E-05	7.080232		ENSG00000100764:	PSMC1			gi|24430151|ref|NP_	proteasome 26S ATPase sub	440	49185	6.2	0	o	Q	0	0
1292	3	9.64E-05	0	0	INF		ENSG00000087302:	C14orf166			gi|7706322|ref|NP_0	homeobox prox 1 [Homo sap	244	28068	6.7	0	o	Q	20	0
1293	3	9.42E-05	0	0	INF		ENSG00000163563:	MNDA			gi|4505227|ref|NP_0	myeloid cell nuclear different	407	45836	9.8	0	o	Q	31	0
1294	3	9.11E-05	0	0	INF		ENSG00000130826:	DKC1			gi|4503337|ref|NP_0	dyskerin [Homo sapiens]	514	57674	9.4	0	o	Q	0	0
1295	3	9.02E-05	0	0	INF		ENSG00000126005:	EIF6			gi|31563378|ref|NP_	eukaryotic translation initiatio	245	26599	4.7	0	o	Q	32	0
1296	3	8.94E-05	0	0	INF		ENSG00000136938:	ANP32B			gi|5454088|ref|NP_0	acidic (leucine-rich) nuclear p	251	28788	4.1	0	o	Q	30	0
1297	3	8.94E-05	0	0	INF		ENSG00000086189:	DIMT1L			gi|7657198|ref|NP_0	dimethyladenosine transferas	313	35236	10	0	o	Q	36	0.001
1298	3	8.91E-05	0	0	INF		ENSG00000132002:	DNAJB1			gi|5453690|ref|NP_0	DnaJ (Hsp40) homolog, subf	340	38044	8.6	0	o	Q	17	0
1299	3	8.87E-05	0	0	INF		ENSG00000169627:	BOLA2B			gi|85797673|ref|NP_	bolA-like protein 2B [Homo s	152	16932	8.2	0	o	S	30	0.571
1300	3	8.67E-05	0	0	INF		ENSG00000100030:	MAPK1			gi|66932916|ref|NP_	mitogen-activated protein kin	360	41390	7	0	o	Q	17	0.383
1301	3	8.64E-05	0	0	INF		ENSG00000186940:	CHCHD9			gi|58219034|ref|NP_	coiled-coil-helix-coiled-coil-he	151	15490	9.9	0	o	S	49	0.839
1302	3	8.64E-05	0	0	INF		ENSG00000138430:	OLA1			gi|58761500|ref|NP_	GTP-binding protein PTD004	396	44744	7.8	0	o	Q	50	0
1303	3	8.64E-05	0	0	INF		NA:ENSMUSG00000	SET			gi|4506891|ref|NP_0	SET translocation (myeloid le	277	32134	4.2	0	o	Q	0	0
1304	3	8.63E-05	0	0	INF		ENSG00000168564:	CDKN2AIP			gi|8923040|ref|NP_0	CDKN2A interacting protein [	580	61125	9	0	o	Q	27	0
1305	3	8.58E-05	0	0	INF		ENSG00000043093:	DCUN1D1			gi|36030883|ref|NP_	RP42 homolog [Homo sapier	259	30124	5.3	0	o	Q	30	0
1306	3	8.55E-05	0	0	INF		ENSG00000161542:	PRPSAP1			gi|4506131|ref|NP_0	phosphoribosyl pyrophospha	356	39480	7.2	0	o	Q	23	0.082
1307	3	8.44E-05	0	0	INF		ENSG00000078304:	PPP2R5C			gi|31083236|ref|NP_	gamma isoform of regulatory	485	56661	7.2	0	o	Q	36	0
1308	3	8.36E-05	1	7.73E-06	10.81372		ENSG00000169504:	CLIC4			gi|7330335|ref|NP_0	chloride intracellular channel	253	28772	5.6	0	o	Q	30	0
1309	3	8.21E-05	0	0	INF		ENSG00000129824:	LOC100133662			gi|169216331|ref|XP	PREDICTED: hypothetical pr	263	29456	10.2	0	o	Q	58	0.014
1310	3	8.05E-05	0	0	INF		ENSG00000130764:	LRRC47			gi|24308207|ref|NP_	leucine rich repeat containing	583	63473	8.3	0	o	Q	38	0.005
1311	3	7.97E-05	0	0	INF		ENSG00000139725:	RHOF			gi|38016957|ref|NP_	ras homolog gene family, me	211	23625	8.6	0	o	Q	17	0.001
1312	3	7.94E-05	0	0	INF		ENSG00000147274:	RBMX			gi|56699409|ref|NP_	RNA binding motif protein, X-	391	42332	10.1	0	o	Q	27	0
1313	3	7.93E-05	0	0	INF		ENSG00000105835:	PBEF1			gi|5031977|ref|NP_0	visfatin precursor [Homo sap	491	55521	7.2	0	o	Q	18	0
1314	3	7.91E-05	0	0	INF		ENSG00000204574:	ABCF1			gi|10947135|ref|NP_	ATP-binding cassette, sub-fa	807	91680	7.7	0	o	Q	0	0
1315	3	7.91E-05	0	0	INF		ENSG00000146677:	LOC644907			gi|147900596|ref|NP	hypothetical protein LOC644	135	15751	10.9	0	o	Q	0	0
1316	3	7.91E-05	0	0	INF		ENSG00000178035:	IMPDH2			gi|66933016|ref|NP_	inosine monophosphate dehy	514	55805	6.9	0	o	Q	21	0.001
1317	3	7.91E-05	0	0	INF		ENSG00000070761:	C16orf80			gi|8392875|ref|NP_0	transcription factor IIB [Homo	193	22774	9.8	0	o	Q	20	0.089
1318	3	7.88E-05	0	0	INF		ENSG00000128739:	SNRPN			gi|13027650|ref|NP_	small nuclear ribonucleoprote	240	24614	11.2	0	o	Q	0	0
1319	3	7.85E-05	0	0	INF		ENSG00000104889:	RNASEH2A			gi|38455391|ref|NP_	ribonuclease H2, large subur	299	33395	5.3	0	o	Q	33	0
1320	3	7.77E-05	0	0	INF		ENSG00000160691:	SHC1			gi|32261324|ref|NP_	SHC (Src homology 2 domai	474	51682	7.2	0	o	Q	17	0
1321	3	7.72E-05	0	0	INF		ENSG00000043462:	LCP2			gi|5031855|ref|NP_0	lymphocyte cytosolic protein	533	60188	6.3	0	o	Q	22	0
1322	3	7.65E-05	0	0	INF		ENSG00000120265:	PCMT1			gi|4885539|ref|NP_0	protein-L-isoaspartate (D-asp	227	24636	7.2	0	o	Q	44	0
1323	3	7.45E-05	1	7.26E-06	10.26057		ENSG00000115484:	CCT4			gi|38455427|ref|NP_	chaperonin containing TCP1,	539	57924	7.8	0	o	Q	23	0.005
1324	3	7.37E-05	0	0	INF		ENSG00000121774:	KHDRBS1			gi|5730027|ref|NP_0	KH domain containing, RNA	443	48227	8.7	0	o	Q	27	0
1325	3	7.29E-05	0	0	INF		ENSG00000100591:	AHSA1			gi|6912280|ref|NP_0	AHA1, activator of heat shoc	338	38274	5.5	0	o	Q	0	0
1326	3	7.29E-05	0	0	INF		ENSG00000108591:	DRG2			gi|4557537|ref|NP_0	developmentally regulated G	364	40746	8.9	0	o	Q	0	0
1327	3	7.23E-05	0	0	INF		ENSG00000143851:	PTPN7			gi|18375658|ref|NP_	protein tyrosine phosphatase	360	40529	6.8	0	o	S	24	0.814
1328	3	7.18E-05	0	0	INF		ENSG00000133226:	SRRM1			gi|42542379|ref|NP_	serine/arginine repetitive mat	904	102335	11.8	0	o	Q	14	0
1329	3	7.16E-05	0	0	INF		ENSG00000128394:	APOBEC3G			gi|13399304|ref|NP_	apolipoprotein B mRNA editi	384	46408	8	0	o	Q	0	0
1330	3	7.1E-05	0	0	INF		ENSG00000143353:	LYPLAL1			gi|20270341|ref|NP_	lysophospholipase-like 1 [Ho	237	26334	7.8	0	o	Q	37	0.202
1331	3	6.94E-05	0	0	INF		ENSG00000101336:	HCK			gi|30795229|ref|NP_	hemopoietic cell kinase isofo	526	59600	6.7	0	o	Q	0	0
1332	3	6.94E-05	0	0	INF		ENSG00000163344:	PMVK			gi|5729980|ref|NP_0	phosphomevalonate kinase [	192	21995	5.7	0	o	Q	22	0.036
1333	3	6.92E-05	0	0	INF		ENSG00000196531:	NACA			gi|5031931|ref|NP_0	nascent polypeptide-associat	215	23384	4.6	0	o	Q	0	0
1334	3	6.8E-05	0	0	INF		ENSG00000137513:	NARS2			gi|39725683|ref|NP_	asparaginyl-tRNA synthetase	477	54077	7.2	0	o	Q	17	0.114
1335	3	6.7E-05	0	0	INF		ENSG00000188677:	PARVB			gi|20127528|ref|NP_	parvin, beta isoform b [Homo	364	41714	6.7	0	o	Q	36	0.001
1336	3	6.69E-05	0	0	INF		ENSG00000132646:	PCNA			gi|33239451|ref|NP_	proliferating cell nuclear antig	261	28769	4.7	0	o	Q	19	0.001
1337	3	6.68E-05	0	0	INF		ENSG00000023318:	TXNDC4			gi|52487191|ref|NP_	thioredoxin domain containin	406	46971	5.3	0	o	S	30	0.984
1338	3	6.66E-05	0	0	INF		ENSG00000138757:	G3BP2			gi|45359846|ref|NP_	Ras-GTPase activating prote	449	50817	5.4	0	o	Q	19	0
1339	3	6.6E-05	0	0	INF		ENSG00000186432:	KPNA4			gi|4504901|ref|NP_0	karyopherin alpha 4 [Homo s	521	57887	5	0	o	Q	0	0
1340	3	6.55E-05	0	0	INF		ENSG00000106211:	HSPB1			gi|4504517|ref|NP_0	heat shock 27kDa protein 1 [	205	22783	6.4	0	o	Q	19	0
1341	3	6.52E-05	0	0	INF		ENSG00000147471:	PROSC			gi|6005842|ref|NP_0	proline synthetase co-transcr	275	30344	7.5	0	o	Q	20	0.211
1342	3	6.49E-05	0	0	INF		ENSG00000147443:	DOK2			gi|41406050|ref|NP_	docking protein 2 [Homo sap	412	45379	6	0	o	Q	40	0.001
1343	3	6.42E-05	0	0	INF		ENSG00000084623:	EIF3I			gi|4503513|ref|NP_0	eukaryotic translation initiatio	325	36502	5.6	0	o	Q	15	0
1344	3	6.36E-05	1	3.93E-06	16.15627		ENSG00000134760:	DSG1			gi|119703744|ref|NP	desmoglein 1 preproprotein [	1049	113748	5	0	o	S	24	0.672
1345	3	6.26E-05	0	0	INF		ENSG00000023734:	STRAP			gi|148727341|ref|NP	serine/threonine kinase recep	350	38438	5.1	0	o	Q	24	0.005
1346	3	6.26E-05	0	0	INF		ENSG00000141048:	MYH4			gi|110611903|ref|NP	myosin, heavy polypeptide 4,	1939	223069	5.8	0	o	Q	14	0
1347	3	6.23E-05	0	0	INF		ENSG00000213782:	DDX47			gi|20149629|ref|NP_	DEAD (Asp-Glu-Ala-Asp) box	455	50647	9.1	0	o	Q	0	0
1348	3	6.17E-05	0	0	INF		ENSG00000132780:	NASP			gi|27262628|ref|NP_	nuclear autoantigenic sperm	788	85238	4.3	0	o	S	19	0.881
1349	3	6.13E-05	0	0	INF		ENSG00000129103:	SUMF2			gi|110227848|ref|NP	sulfatase modifying factor 2 i	304	34290	8.4	0	o	S	26	0.999
1350	3	6.13E-05	0	0	INF		ENSG00000108669:	CYTH1			gi|110349763|ref|NP	pleckstrin homology, Sec7 ar	397	46356	5.5	0	o	Q	0	0
1351	3	6.12E-05	0	0	INF		ENSG00000113384:	GOLPH3			gi|11545859|ref|NP_	golgi phosphoprotein 3 [Hom	298	33811	6.4	0	o	Q	19	0
1352	3	6.07E-05	0	0	INF		ENSG00000157191:	NECAP2			gi|8922416|ref|NP_0	NECAP endocytosis associat	263	28339	8.4	0	o	Q	0	0
1353	3	6.05E-05	0	0	INF		ENSG00000180370:	PAK2			gi|32483399|ref|NP_	p21-activated kinase 2 [Hom	524	58043	6	0	o	Q	0	0
1354	3	6.03E-05	0	0	INF		ENSG00000134954:	ETS1			gi|4885219|ref|NP_0	v-ets erythroblastosis virus E	441	50408	5.2	0	o	Q	17	0
1355	3	6.03E-05	0	0	INF		ENSG00000147457:	CHMP7			gi|22748641|ref|NP_	CHMP family, member 7 [Ho	453	50911	5.3	0	o	Q	20	0
1356	3	6.01E-05	0	0	INF		ENSG00000150593:	PDCD4			gi|21735596|ref|NP_	programmed cell death 4 isof	469	51735	5.2	0	o	Q	0	0
1357	3	5.96E-05	0	0	INF		ENSG00000105576:	TNPO2			gi|48675813|ref|NP_	transportin 2 (importin 3, kary	887	100408	5	0	o	Q	23	0
1358	3	5.95E-05	0	0	INF		ENSG00000105607:	GCDH			gi|4503943|ref|NP_0	glutaryl-Coenzyme A dehydro	438	48127	8.1	0	o	Q	28	0.39
1359	3	5.91E-05	0	0	INF		ENSG00000168497:	SDPR			gi|4759082|ref|NP_0	serum deprivation response	425	47173	5.2	0	o	Q	0	0
1360	3	5.88E-05	0	0	INF		ENSG00000169032:	MAP2K1			gi|5579478|ref|NP_0	mitogen-activated protein kin	393	43439	6.6	0	o	Q	20	0.001
1361	3	5.87E-05	0	0	INF		ENSG00000151553:	KIAA1600			gi|61098052|ref|NP_	hypothetical protein LOC577	765	86415	5.3	0	o	Q	22	0.088
1362	3	5.78E-05	0	0	INF		ENSG00000100749:	VRK1			gi|4507903|ref|NP_0	vaccinia related kinase 1 [Ho	396	45476	8.9	0	o	Q	31	0
1363	3	5.72E-05	0	0	INF		ENSG00000132604:	TERF2			gi|5032169|ref|NP_0	telomeric repeat binding facto	500	55551	9.2	0	o	Q	17	0
1364	3	5.63E-05	0	0	INF		ENSG00000185049:	WHSC2			gi|19913363|ref|NP_	Wolf-Hirschhorn syndrome c	528	57277	9	0	o	Q	36	0.005
1365	3	5.61E-05	0	0	INF		ENSG00000177830:	CHID1			gi|24431994|ref|NP_	chitinase domain containing	393	44883	8.8	0	o	S	20	1
1366	3	5.53E-05	1	5.8E-06	9.537754		ENSG00000101266:	CSNK2A1			gi|29570791|ref|NP_	casein kinase II alpha 1 subu	391	45144	7.7	0	o	Q	18	0
1367	3	5.49E-05	0	0	INF		ENSG00000186283:	TOR3A			gi|115647957|ref|NP	torsin family 3, member A [H	397	46199	6	0	o	S	22	0.999
1368	3	5.49E-05	0	0	INF		ENSG00000131378:	RFTN1			gi|41872577|ref|NP_	raft-linking protein [Homo sap	578	63146	5.7	0	o	Q	0	0
1369	3	5.42E-05	0	0	INF		ENSG00000163564:	PYHIN1			gi|39540514|ref|NP_	pyrin and HIN domain family,	492	55065	9.8	0	o	Q	0	0
1370	3	5.42E-05	0	0	INF		ENSG00000158793:	NIT1			gi|5031947|ref|NP_0	nitrilase 1 [Homo sapiens]	327	35896	7.7	0	o	S	31	0.799
1371	3	5.4E-05	0	0	INF		ENSG00000129968:	FAM108A1			gi|21361949|ref|NP_	hypothetical protein LOC819	361	39136	7	0	o	S	21	0.837
1372	3	5.37E-05	0	0	INF		ENSG00000147010:	SH3KBP1			gi|13994242|ref|NP_	SH3-domain kinase binding p	665	73126	6.6	0	o	Q	0	0
1373	3	5.32E-05	0	0	INF		ENSG00000173110:	HSPA6			gi|34419635|ref|NP_	heat shock 70kDa protein 6 (	643	71028	6.1	0	o	Q	19	0.009
1374	3	5.24E-05	0	0	INF		ENSG00000101972:	STAG2			gi|112789528|ref|NP	stromal antigen 2 isoform a [	1268	145751	5.5	0	o	Q	20	0
1375	3	5.18E-05	0	0	INF		ENSG00000117899:	MESDC2			gi|74136552|ref|NP_	mesoderm development cand	234	26077	7.8	0	o	S	34	1
1376	3	5.17E-05	0	0	INF		ENSG00000025800:	KPNA6			gi|6912478|ref|NP_0	karyopherin alpha 6 [Homo s	536	60030	5	0	o	Q	0	0
1377	3	5.14E-05	0	0	INF		ENSG00000136891:	TEX10			gi|8923269|ref|NP_0	testis expressed 10 [Homo sa	929	105693	9.4	0	o	Q	0	0
1378	3	5.1E-05	0	0	INF		ENSG00000089820:	ARHGAP4			gi|156071465|ref|NP	Rho GTPase activating prote	946	105026	6.3	0	o	Q	0	0
1379	3	5.09E-05	0	0	INF		ENSG00000169756:	LIMS1			gi|13518026|ref|NP_	LIM and senescent cell antig	325	37251	8	0	o	Q	16	0.014
1380	3	5.07E-05	0	0	INF		ENSG00000126456:	IRF3			gi|4504725|ref|NP_0	interferon regulatory factor 3	427	47219	5.3	0	o	Q	24	0.261
1381	3	4.98E-05	0	0	INF		ENSG00000213551:	DNAJC9			gi|27597059|ref|NP_	DnaJ homolog, subfamily C,	260	29910	5.7	0	o	Q	17	0
1382	3	4.92E-05	0	0	INF		ENSG00000067048:	LOC100130220			gi|169216131|ref|XP	PREDICTED: hypothetical pr	660	73154	7.6	0	o	Q	0	0
1383	3	4.91E-05	1	7.19E-06	6.830332		ENSG00000007392:	LUC7L			gi|41393554|ref|NP_	LUC7-like isoform b [Homo s	371	43728	9.9	0	o	Q	22	0.006
1384	3	4.9E-05	0	0	INF		ENSG00000170606:	HSPA4			gi|38327039|ref|NP_	heat shock 70kDa protein 4 [	840	94331	5.2	0	o	Q	21	0.111
1385	3	4.89E-05	0	0	INF		ENSG00000142230:	SAE1			gi|4885585|ref|NP_0	SUMO1 activating enzyme su	346	38450	5.3	0	o	Q	0	0
1386	3	4.84E-05	0	0	INF		ENSG00000119541:	VPS4B			gi|17865802|ref|NP_	vacuolar protein sorting facto	444	49302	7.2	0	o	Q	19	0
1387	3	4.73E-05	0	0	INF		ENSG00000108039:	XPNPEP1			gi|21359929|ref|NP_	X-prolyl aminopeptidase (am	623	69918	5.7	0	o	Q	17	0
1388	3	4.69E-05	0	0	INF		ENSG00000119383:	PPP2R4			gi|30065643|ref|NP_	protein phosphatase 2A, regu	323	36775	6.3	0	o	Q	0	0
1389	3	4.68E-05	0	0	INF		ENSG00000141968:	VAV1			gi|7108367|ref|NP_0	vav 1 guanine nucleotide exc	845	98314	6.6	0	o	Q	19	0.004
1390	3	4.68E-05	0	0	INF		ENSG00000165934:	CPSF2			gi|34101288|ref|NP_	cleavage and polyadenylation	782	88487	5.1	0	o	Q	21	0.01
1391	3	4.67E-05	0	0	INF		ENSG00000077420:	APBB1IP			gi|56118221|ref|NP_	amyloid beta (A4) precursor p	666	73183	5.6	0	o	Q	28	0
1392	3	4.64E-05	0	0	INF		ENSG00000159593:	APPBP1			gi|4502169|ref|NP_0	NEDD8 activating enzyme E	534	60246	5.4	0	o	Q	43	0
1393	3	4.63E-05	0	0	INF		ENSG00000132274:	TRIM22			gi|117938316|ref|NP	tripartite motif-containing 22	498	56947	7.7	0	o	Q	28	0
1394	3	4.59E-05	0	0	INF		ENSG00000130254:	SAFB2			gi|7661936|ref|NP_0	scaffold attachment factor B2	953	107474	6.2	0	o	Q	24	0.001
1395	3	4.55E-05	0	0	INF		ENSG00000165732:	DDX21			gi|50659095|ref|NP_	DEAD (Asp-Glu-Ala-Asp) box	783	87344	9.3	0	o	Q	0	0
1396	3	4.54E-05	0	0	INF		ENSG00000155438:	MKI67IP			gi|21314753|ref|NP_	MKI67 (FHA domain) interac	293	34253	9.9	0	o	Q	17	0.002
1397	3	4.51E-05	0	0	INF		ENSG00000147677:	EIF3H			gi|4503515|ref|NP_0	eukaryotic translation initiatio	352	39930	6.5	0	o	Q	22	0.087
1398	3	4.51E-05	0	0	INF		ENSG00000102575:	ACP5			gi|4501873|ref|NP_0	tartrate resistant acid phosph	325	36599	8.7	0	o	S	22	1
1399	3	4.47E-05	0	0	INF		ENSG00000105972:	C7orf20			gi|38570062|ref|NP_	hypothetical protein LOC516	327	36504	5.4	0	o	Q	17	0
1400	3	4.45E-05	3	7.62E-06	5.839374		ENSG00000118873:	RAB3GAP2			gi|19923790|ref|NP_	rab3 GTPase-activating prote	1393	155984	5.6	0	o	Q	17	0.125
1401	3	4.42E-05	0	0	INF		ENSG00000086589:	RBM22			gi|8922328|ref|NP_0	RNA binding motif protein 22	420	46896	8.5	0	o	Q	30	0
1402	3	4.42E-05	0	0	INF		ENSG00000060491:	OGFR			gi|33286446|ref|NP_	opioid growth factor receptor	677	73325	4.8	0	o	Q	0	0
1403	3	4.35E-05	0	0	INF		ENSG00000148660:	CAMK2G			gi|26667191|ref|NP_	calcium/calmodulin-depende	495	55961	7.2	0	o	Q	16	0
1404	3	4.33E-05	0	0	INF		ENSG00000104835:	SARS2			gi|8923421|ref|NP_0	seryl-tRNA synthetase 2 [Ho	518	58283	8.1	0	o	Q	25	0.005
1405	3	4.3E-05	0	0	INF		ENSG00000154727:	GABPA			gi|34452721|ref|NP_	GA binding protein transcript	454	51295	5	0	o	Q	0	0
1406	3	4.27E-05	0	0	INF		ENSG00000095380:	NANS			gi|12056473|ref|NP_	N-acetylneuraminic acid pho	359	40308	6.7	0	o	Q	16	0.004
1407	3	4.26E-05	0	0	INF		ENSG00000162231:	NXF1			gi|125625324|ref|NP	nuclear RNA export factor 1	356	40476	9	0	o	Q	0	0
1408	3	4.17E-05	0	0	INF		ENSG00000139436:	GIT2			gi|17149830|ref|NP_	G protein-coupled receptor k	759	84543	7.2	0	o	Q	23	0.004
1409	3	4.15E-05	0	0	INF		ENSG00000013275:	PSMC4			gi|24430155|ref|NP_	proteasome 26S ATPase sub	387	43508	5.3	0	o	Q	0	0
1410	3	4.14E-05	0	0	INF		ENSG00000183751:	TBL3			gi|19913369|ref|NP_	transducin beta-like 3 [Homo	808	89035	6.9	0	o	Q	17	0
1411	3	4.14E-05	0	0	INF		ENSG00000020922:	MRE11A			gi|24234690|ref|NP_	meiotic recombination 11 hor	680	77642	5.8	0	o	Q	0	0
1412	3	4.12E-05	0	0	INF		ENSG00000174780:	SRP72			gi|109638749|ref|NP	signal recognition particle 72	671	74606	9.3	0	o	Q	17	0.028
1413	3	4.06E-05	0	0	INF		ENSG00000133313:	CNDP2			gi|8922699|ref|NP_0	CNDP dipeptidase 2 [Homo s	475	52779	5.9	0	o	Q	34	0
1414	3	4.06E-05	0	0	INF		ENSG00000090857:	PDPR			gi|32261326|ref|NP_	pyruvate dehydrogenase pho	878	99233	6.4	0	o	Q	58	0.027
1415	3	4.06E-05	0	0	INF		ENSG00000135269:	TES			gi|7661666|ref|NP_0	testin isoform 1 [Homo sapie	421	47996	7.7	0	o	Q	0	0
1416	3	4.04E-05	0	0	INF		ENSG00000107625:	DDX50			gi|13129006|ref|NP_	nucleolar protein GU2 [Homo	737	82565	9.2	0	o	Q	23	0
1417	3	4.04E-05	0	0	INF		ENSG00000105254:	TBCB			gi|50428925|ref|NP_	cytoskeleton associated prote	244	27326	5.1	0	o	Q	19	0.051
1418	3	4.03E-05	0	0	INF		ENSG00000141030:	COPS3			gi|23238222|ref|NP_	COP9 constitutive photomorp	423	47873	6.7	0	o	Q	18	0.004
1419	3	4.02E-05	0	0	INF		ENSG00000139083:	ETV6			gi|4503611|ref|NP_0	ets variant gene 6 [Homo sap	452	53000	7.4	0	o	Q	0	0
1420	3	3.94E-05	2	7.55E-06	5.21877		ENSG00000138496:	PARP9			gi|13899297|ref|NP_	poly (ADP-ribose) polymeras	854	96283	7.9	0	o	S	32	0.528
1421	3	3.92E-05	0	0	INF		ENSG00000000938:	FGR			gi|112382244|ref|NP	proto-oncogene tyrosine-prot	529	59479	5.6	0	o	Q	16	0

rk	RESTING LYMPHOCYTES NEs								PHA-TREATED LYMPHOCYTES NEs							
	HsNaOH-NE_NT_lymphocytes_CNBrTi_1_dNSAF	HsNaOH-NE_NT_lymphocytes_Ti_1_dNSAF	HsNaOH-NE_NT_lymphocytes_PK_1_dNSAF	HsSD-NE_NT_lymphocytes_Ti_1_dNSAF	HsSD-NE_NT_lymphocytes_PK_1_dNSAF	NT-bNEs Detected # Out of 5	NT-bNEs dNSAF AVG	NT-bNEs dNSAF SDV	HsNaOH-NE_PHA_lymphocytes_CNBrTi_1_dNSAF	HsNaOH-NE_PHA_lymphocytes_Ti_1_dNSAF	HsNaOH-NE_PHA_lymphocytes_PK_1_dNSAF	HsSD-NE_PHA_lymphocytes_Ti_1_dNSAF	HsSD-NE_PHA_lymphocytes_PK_1_dNSAF	PHA-bNEs Detected # Out of 5	PHA-bNEs dNSAF AVG	PHA-bNEs dNSAF SDV
1275	0	0.000125	0	0.000661	0	2	0.000196	0.000315	0	0	0	0	0.000205	1	5.13E-05	0.000103
1276	0.000676	0	0	0.000221	0	2	0.000224	0.000319	0	9.35E-05	0	0	0	1	2.34E-05	4.67E-05
1277	0	0	0	0	0	0	0	0	0	0.00028	0	0.000102	0.000598	3	0.000245	0.000262
1278	0	0	0	0	0	0	0	0	0	5.34E-05	0	0.000505	0.000366	3	0.000231	0.000244
1279	0	0	0	0	0	0	0	0	0	5.92E-05	0	0.000344	0.000506	3	0.000228	0.000239
1280	0	0.000222	0	0	0	1	5.55E-05	0.000111	0	0	0	0.000311	0.000366	2	0.000169	0.000197
1281	0	0.000243	0	0.000184	0	2	0.000107	0.000126	0	0.000467	0	0	0	1	0.000117	0.000234
1282	0	0.000192	0	0.000363	0	2	0.000139	0.000175	0	0	0	0	0.000315	1	7.88E-05	0.000158
1283	0	0	0	0.000166	0	1	4.16E-05	8.31E-05	0	0.000106	0	0.000576	0	2	0.00017	0.000275
1284	0	0.000376	0	0.000183	0	2	0.00014	0.000179	0	0.000284	0	0	0	1	7.1E-05	0.000142
1285	0	0	0	0.000574	0	1	0.000143	0.000287	0	0.000146	0	0.000106	0	2	6.29E-05	7.44E-05
1286	0	0.000445	0	0.000193	0	2	0.000159	0.000211	0	0.000183	0	0	0	1	4.58E-05	9.17E-05
1287	0	0	0	0.000495	0	1	0.000124	0.000247	0	0.000189	0	0.000137	0	2	8.14E-05	9.63E-05
1288	0	0.000161	0	0.000244	0	2	0.000101	0.000122	0	0.000414	0	0	0	1	0.000103	0.000207
1289	0	0.000151	0	0.000153	0	2	7.59E-05	8.77E-05	0	0	0	0	0.000497	1	0.000124	0.000249
1290	0	0	0	0.000431	0	1	0.000108	0.000215	0	6.84E-05	0	0.000299	0	2	9.17E-05	0.000142
1291	0	0	0	0.000241	0	1	6.02E-05	0.00012	0	5.1E-05	0	0.000482	0	2	0.000133	0.000234
1292	0	0.000287	0	0.000217	0	2	0.000126	0.000148	0	0	0	0.000268	0	1	6.69E-05	0.000134
1293	0	0.000229	0	0.000304	0	2	0.000133	0.000157	0	0.00022	0	0	0	1	5.51E-05	0.00011
1294	0	0	0	0.000137	0	1	3.44E-05	6.87E-05	0	0.000218	0	0	0.000373	2	0.000148	0.000182
1295	0	0	0	0.000288	0	1	7.21E-05	0.000144	0	0.000366	0	6.66E-05	0	2	0.000108	0.000175
1296	0	0.000186	0	0.000172	0	2	8.95E-05	0.000103	0	0.000358	0	0	0	1	8.94E-05	0.000179
1297	0	7.45E-05	0	0.000282	0	2	8.92E-05	0.000133	0	0.000358	0	0	0	1	8.96E-05	0.000179
1298	0	0	0	5.2E-05	0	1	1.3E-05	2.6E-05	0	0	0	0.000096	0.000565	2	0.000165	0.00027
1299	0	0.000307	0	0	0	1	7.67E-05	0.000153	0	0.000295	0	0.000107	0	2	0.000101	0.000139
1300	0	0	0	0.000131	0	1	3.27E-05	6.54E-05	0	0	0	0.000136	0.000427	2	0.000141	0.000201
1301	0	0.000309	0	0.000234	0	2	0.000136	0.00016	0	0.000149	0	0	0	1	3.71E-05	7.43E-05
1302	0	0.000177	0	0.000401	0	2	0.000145	0.00019	0	0.000113	0	0	0	1	2.83E-05	5.67E-05
1303	0	8.42E-05	0	0.000191	0	2	6.89E-05	9.08E-05	0	0	0	0	0.000416	1	0.000104	0.000208
1304	0.000559	4.02E-05	0	9.14E-05	0	3	0.000173	0.00026	0	0	0	0	0	0	0	0
1305	0	0	0	6.82E-05	0	1	1.71E-05	3.41E-05	0	0.000173	0	0	0.000445	2	0.000154	0.00021
1306	0	0	0	9.92E-05	0	1	2.48E-05	4.96E-05	0	0	0	4.58E-05	0.000539	2	0.000146	0.000263
1307	0	4.81E-05	0	0	0	1	1.2E-05	2.4E-05	0	0.000231	0	0	0.000396	2	0.000157	0.000193
1308	0	0	0	0.000209	0	1	5.24E-05	0.000105	0	8.87E-05	0	0	0.000371	2	0.000115	0.000176
1309	0	0	0	9.77E-05	0	1	2.44E-05	4.88E-05	0	0.000413	0	0	0.000146	2	0.00014	0.000195
1310	0.000278	0	0	0.000212	0	2	0.000123	0.000144	0	0.000154	0	0	0	1	3.85E-05	7.7E-05
1311	0	0.000332	0.000223	8.37E-05	0	3	0.000159	0.000147	0	0	0	0	0	0	0	0
1312	0	0.000418	0	4.52E-05	0	2	0.000116	0.000202	0	0.000172	0	0	0	1	4.3E-05	8.61E-05
1313	0	0	0	0.000144	0	1	3.6E-05	7.2E-05	0	0	0	9.97E-05	0.000391	2	0.000123	0.000185
1314	0	2.89E-05	0	0	0	1	7.23E-06	1.45E-05	0	0	0	8.09E-05	0.000523	2	0.000151	0.000251
1315	0	0.000346	0	0	0	1	8.64E-05	0.000173	0	0.000166	0	0.000121	0	2	7.18E-05	8.49E-05
1316	0	4.54E-05	0	0.000206	0	2	6.29E-05	9.79E-05	0	0	0	0.000381	0	1	9.53E-05	0.000191
1317	0	0.000242	0	0.000275	0	2	0.000129	0.00015	0	0.000116	0	0	0	1	2.91E-05	5.81E-05
1318	0	0.000194	0	0.000368	0	2	0.000141	0.000177	0	0	0	0.000068	0	1	0.000017	0.000034
1319	0	7.8E-05	0	5.91E-05	0	2	3.43E-05	4.03E-05	0	0	0	0.000491	0	1	0.000123	0.000246
1320	0	0.000246	0	0.000186	0	2	0.000108	0.000127	0	0.000189	0	0	0	1	4.73E-05	9.47E-05
1321	0	0	0	0.000265	0	1	6.63E-05	0.000133	0	0.000168	0	0.000184	0	2	8.8E-05	0.000102
1322	0	0.000103	0	0.000311	0	2	0.000104	0.000147	0	0.000198	0	0	0	1	4.94E-05	9.88E-05
1323	0	8.65E-05	0	0.000328	0	2	0.000104	0.000155	0	0	0	0.000182	0	1	4.54E-05	9.08E-05
1324	0	0.000105	0	0	0	1	2.63E-05	5.27E-05	0	5.06E-05	0	0	0.000433	2	0.000121	0.00021
1325	0	0.000138	0	0.000105	0	2	6.06E-05	7.13E-05	0	0	0	0	0.000341	1	8.52E-05	0.00017
1326	0	6.41E-05	0	9.71E-05	0	2	4.03E-05	4.84E-05	0	0	0	0	0.000422	1	0.000105	0.000211
1327	0	0	0	9.81E-05	0	1	2.45E-05	4.91E-05	0	0.000374	0	0	0.000107	2	0.00012	0.000176
1328	0	0.000129	0	9.77E-05	0	2	5.67E-05	6.67E-05	0	0.000347	0	0	0	1	8.69E-05	0.000174
1329	0	0	0	0	0	0	0	0	0	0.000175	0	0.000298	1E-04	3	0.000143	0.000125
1330	0	0	0	0.000149	0	1	3.73E-05	7.45E-05	0	9.47E-05	0	0	0.000324	2	0.000105	0.000153
1331	0.000308	0	0	3.36E-05	0	2	8.55E-05	0.000149	0	0.000213	0	0	0	1	5.33E-05	0.000107
1332	0	0.000121	0	0	0	1	3.04E-05	6.07E-05	0	0.000234	0	0	0.0002	2	0.000108	0.000126
1333	0	0	0	0.000164	0	1	4.11E-05	8.22E-05	0	0.000313	0	7.59E-05	0	2	9.72E-05	0.000148
1334	0	0	0	0.000222	0.000854	2	5.55E-05	0.000111	0	0	0	0	0.000322	1	8.05E-05	0.000161
1335	0	0	0	4.85E-05	0	1	1.21E-05	2.43E-05	0	0.000308	0	0.000179	0	2	0.000122	0.00015
1336	0	0.000179	0	0.000271	0	2	0.000112	0.000135	0	8.6E-05	0	0	0	1	2.15E-05	4.3E-05
1337	0.000399	0	0	0	0	1	9.99E-05	0.0002	0	0	0	4.02E-05	9.46E-05	2	3.37E-05	4.48E-05
1338	0	0.000312	0	3.93E-05	0	2	8.78E-05	0.00015	0	0	0	0.000182	0	1	4.54E-05	9.09E-05
1339	0	0	0	0.000305	0	1	7.63E-05	0.000153	0	0.000129	0	9.4E-05	0	2	5.58E-05	6.6E-05
1340	0	0.000228	0	0	0	1	5.69E-05	0.000114	0	0.000109	0	0	0.000187	2	7.42E-05	9.14E-05
1341	0	0	0	6.42E-05	0	1	1.61E-05	3.21E-05	0	0	0	0.000178	0.000279	2	0.000114	0.000138
1342	0.000394	0	0	8.57E-05	0	2	0.00012	0.000187	0	0	0	3.96E-05	0	1	9.9E-06	1.98E-05
1343	0	0.000287	0	0.000109	0	2	9.89E-05	0.000135	0	0	0	0	0.000118	1	2.95E-05	5.91E-05
1344	0	0.000133	0.000358	1.68E-05	0	3	0.000127	0.000165	0	0	0	0	0	0	0	0
1345	0	0	0	0.000151	0	1	3.79E-05	7.57E-05	0	0.000256	0	9.33E-05	0	2	8.74E-05	0.000121
1346	0	0.000257	0	0.000151	0	2	0.000102	0.000126	0	9.26E-05	0	0	0	1	2.31E-05	4.63E-05
1347	0	0.00041	0	3.88E-05	0	2	0.000112	0.000199	0	4.93E-05	0	0	0	1	1.23E-05	2.47E-05
1348	0	0	0	0.000112	0	1	2.8E-05	5.6E-05	0	0	0	0.000186	0.000195	2	9.53E-05	0.00011
1349	0	0	0	5.81E-05	0	1	1.45E-05	2.91E-05	0	0	0	5.37E-05	0.000379	2	0.000108	0.000182
1350	0	5.88E-05	0	4.45E-05	0	2	2.58E-05	3.04E-05	0	0	0	0	0.000387	1	9.67E-05	0.000193
1351	0	0	0	5.93E-05	0	1	1.48E-05	2.96E-05	0	0.000301	0	0	0.000129	2	0.000107	0.000143
1352	0	0.000266	0	0.000134	0	2	0.0001	0.000127	0	8.53E-05	0	0	0	1	2.13E-05	4.27E-05
1353	0	0	0	6.74E-05	0	1	1.69E-05	3.37E-05	0	4.28E-05	0	0.000374	0	2	0.000104	0.000181
1354	0	0	0	0.00016	0	1	4.01E-05	8.01E-05	0	0	0	0.000148	0.000174	2	8.05E-05	9.36E-05
1355	0	0.000206	0	7.8E-05	0	2	7.1E-05	9.72E-05	0	0.000198	0	0	0	1	4.95E-05	9.91E-05
1356	0	0	0	0	0	0	0	0	0	0.000144	0	0.000174	0.000164	3	0.00012	8.12E-05
1357	0	0	0	6.43E-05	0	1	1.61E-05	3.22E-05	0	0	0	6.44E-05	0.000348	2	0.000103	0.000166
1358	0	5.33E-05	0	0	0	1	1.33E-05	2.66E-05	0	0	0	0.000335	8.76E-05	2	0.000106	0.000159
1359	0.000382	0	0	0	0	1	9.54E-05	0.000191	0	5.28E-05	0	3.84E-05	0	2	2.28E-05	2.7E-05
1360	0	0	0	0.000297	0	1	7.42E-05	0.000148	0	7.61E-05	0	0	9.77E-05	2	4.34E-05	5.09E-05
1361	0	0	0	6.93E-05	0	1	1.73E-05	3.46E-05	0	0	0	0.000149	0.000251	2	0.0001	0.000123
1362	0	0	0	8.92E-05	0	1	2.23E-05	4.46E-05	0	0	0	8.24E-05	0.000291	2	9.33E-05	0.000137
1363	0	9.33E-05	0	7.07E-05	0	2	4.1E-05	4.82E-05	0	0	0	0.000294	0	1	7.34E-05	0.000147
1364	0	8.83E-05	0	0.000234	0	2	8.06E-05	0.000111	0	0.000127	0	0	0	1	3.19E-05	6.37E-05
1365	0	0.000119	0	4.49E-05	0	2	4.09E-05	5.6E-05	0	0.000285	0	0	0	1	7.14E-05	0.000143
1366	0	0	0	0.000136	0	1	3.39E-05	6.78E-05	0	0	0	0.000209	9.82E-05	2	7.67E-05	9.94E-05
1367	0	5.88E-05	0	0	0	1	1.47E-05	2.94E-05	0	0.000339	0	4.11E-05	0	2	9.5E-05	0.000164
1368	0	0.000161	0	0.000122	0	2	7.09E-05	8.34E-05	0	0.000155	0	0	0	1	3.88E-05	7.76E-05
1369	0	0.000232	0	0	0	1	5.79E-05	0.000116	0	4.56E-05	0	0	0.000156	2	5.04E-05	7.36E-05
1370	0	0	0	0.000216	0	1	5.4E-05	0.000108	0	0	0	9.98E-05	0.000117	2	5.43E-05	6.31E-05
1371	0	0.000258	0	4.89E-05	0	2	7.68E-05	0.000123	0	0.000124	0	0	0	1	3.11E-05	6.21E-05
1372	0	0	0	7.97E-05	0	1	1.99E-05	3.98E-05	0	0.000202	0	0.000147	0	2	8.74E-05	0.000103
1373	0.000252	0.000145	0	2.8E-05	0	3	0.000106	0.000116	0	0	0	0	0	0	0	0
1374	0	0	0.000296	6.97E-05	0	2	9.15E-05	0.00014	0	5.31E-05	0	0	0	1	1.33E-05	2.65E-05
1375	0	0.000199	0	7.55E-05	0	2	6.87E-05	9.41E-05	0	0	0	0.000139	0	1	3.49E-05	6.97E-05
1376	0	0.000131	0	0.000253	0	2	9.58E-05	0.000121	0	0	0	3.04E-05	0	1	7.61E-06	1.52E-05
1377	0	2.51E-05	0	0	0	1	6.28E-06	1.26E-05	0	9.66E-05	0	0	0.000289	2	9.65E-05	0.000136
1378	0	7.4E-05	0	0.000168	0	2	6.05E-05	7.97E-05	0	0.000166	0	0	0	1	4.15E-05	8.3E-05
1379	0	0.000144	0	0.000163	0	2	7.66E-05	8.89E-05	0	0	0	0.0001	0	1	2.51E-05	5.02E-05
1380	0	0.000164	0	0.000165	0	2	8.23E-05	9.51E-05	0	0	0	7.64E-05	0	1	1.91E-05	3.82E-05
1381	0	8.97E-05	0	0.000136	0	2	5.64E-05	6.78E-05	0	0.000173	0	0	0	1	4.31E-05	8.63E-05
1382	0	0	0	0.000187	0	1	4.68E-05	9.35E-05	0	0	0	0.000148	5.82E-05	2	5.16E-05	7.01E-05
1383	0	0.000216	0	4.76E-05	0	2	6.58E-05	0.000102	0	0.00013	0	0	0	1	3.25E-05	6.5E-05
1384	0	0	0	0.00021	0	1	5.26E-05	0.000105	0	0	0	0.000136	4.57E-05	2	4.54E-05	6.41E-05
1385	0	6.74E-05	0	0.000102	0	2	4.24E-05	5.09E-05	0	0	0	0	0.000222	1	5.55E-05	0.000111
1386	0	0.000158	0	0.000119	0	2	6.92E-05	8.15E-05	0	0	0	0.00011	0	1	2.76E-05	5.51E-05
1387	0	7.49E-05	0	0.000198	0	2	6.83E-05	9.37E-05	0	0	0	0.000105	0	1	2.62E-05	5.24E-05
1388	0	7.22E-05	0	0.000164	0	2	5.91E-05	7.78E-05	0	0.000139	0	0	0	1	3.47E-05	6.95E-05
1389	0	0.000221	0	2.09E-05	0	2	6.04E-05	0.000107	0	0.000133	0	0	0	1	3.32E-05	6.64E-05
1390	0	2.98E-05	0	0.000136	0	2	4.13E-05	6.43E-05	0	0	0	0.000209	0	1	5.22E-05	0.000104
1391	0	0	0	0.000292	0	1	7.29E-05	0.000146	0	0	0	2.45E-05	5.76E-05	2	2.05E-05	2.73E-05
1392	0	0	0	3.31E-05	0	1	8.27E-06	1.65E-05	0	0	0	0.000122	0.000216	2	8.45E-05	0.000105
1393	0	0	0	0.000106	0	1	2.66E-05	5.32E-05	0	0	0	3.28E-05	0.000231	2	6.6E-05	0.000111
1394	0	0.000147	0.000197	0	0	2	8.6E-05	0.000101	0	2.35E-05	0	0	0	1	5.89E-06	1.18E-05
1395	0	0.000119	0	0.000203	0	2	8.05E-05	9.91E-05	0	0	0	4.17E-05	0	1	1.04E-05	2.08E-05
1396	0	0	0	0.000121	0	1	3.01E-05	6.03E-05	0	0	0	0.000111	0.000131	2	6.06E-05	7.04E-05
1397	0	0	0	5.02E-05	0	1	1.25E-05	2.51E-05	0	0	0	9.27E-05	0.000218	2	7.77E-05	0.000103
1398	0	7.18E-05	0	0	0	1	1.79E-05	3.59E-05	0	0.000138	0	0.000151	0	2	7.22E-05	8.35E-05
1399	0	0	0	5.4E-05	0	1	1.35E-05	2.7E-05	0	6.86E-05	0	0	0.000235	2	7.58E-05	0.000111
1400	0.000233	0	0	1.27E-05	0	2	6.14E-05	0.000114	0	0	0	0	0.00011	1	2.76E-05	5.51E-05
1401	0	0	0	0	0	0	0	0	0	0.000107	0	0.000155	9.14E-05	3	8.84E-05	6.5E-05
1402	0	0.000207	0	0	0	1	5.17E-05	0.000103	0	3.31E-05	0	0	0.000113	2	3.66E-05	5.35E-05
1403	0	0.000141	0	0	0	1	3.53E-05	7.07E-05	0	9.06E-05	0	0	0.000116	2	5.17E-05	6.07E-05
1404	0	9.01E-05	0	3.41E-05	0	2	3.1E-05	4.25E-05	0	0	0	0	0.000222	1	5.56E-05	0.000111
1405	0	5.14E-05	0	3.89E-05	0	2	2.26E-05	2.66E-05	0	0	0	0	0.000254	1	6.34E-05	0.000127
1406	0	0	0	9.84E-05	0	1	2.46E-05	4.92E-05	0	0	0	0.000136	0.000107	2	6.08E-05	7.13E-05
1407	0	6.55E-05	0	0.000149	0	2	5.36E-05	7.06E-05	0	0.000126	0	0	0	1	3.15E-05	6.3E-05
1408	0	0	0	0.000155	0	1	3.88E-05	7.76E-05	0	5.91E-05	0	0.000119	0	2	4.46E-05	5.71E-05
1409	0	0	0	9.13E-05	0	1	2.28E-05	4.56E-05	0	0	0	4.22E-05	0.000198	2	6.01E-05	9.43E-05
1410	0	0.000144	0	0.000131	0	2	6.89E-05	7.97E-05	0	5.55E-05	0	0	0	1	1.39E-05	2.78E-05
1411	0	0	0	0	0	0	0	0	0	3.3E-05	0	0.000072	0.000226	3	8.27E-05	9.98E-05
1412	0	0.000174	0	0.000132	0	2	7.64E-05	8.98E-05	0	0	0	2.43E-05	0	1	6.08E-06	1.22E-05
1413	0	0.000147	0	7.44E-05	0	2	5.54E-05	7.06E-05	0	0	0	0.000103	0	1	2.58E-05	5.15E-05
1414	0	0	0	8.05E-05	0	1	2.01E-05	4.02E-05	0	2.56E-05	0	0	0.000219	2	6.1E-05	0.000106
1415	0	0.000166	0	4.2E-05	0	2	5.2E-05	7.86E-05	0	0	0	0.000116	0	1	2.91E-05	5.81E-05
1416	0.00022	3.16E-05	0	7.19E-05	0	3	8.09E-05	9.73E-05	0	0	0	0	0	0	0	0
1417	0	0	0	7.24E-05	0	1	1.81E-05	3.62E-05	0	0.000184	0	6.69E-05	0	2	6.27E-05	8.67E-05
1418	0	0	0	0.000125	0	1	3.13E-05	6.26E-05	0	0.000106	0	0	9.08E-05	2	4.92E-05	5.72E-05
1419	0	0	0	7.82E-05	0	1	1.95E-05	3.91E-05	0	9.93E-05	0	0.000144	0	2	6.09E-05	7.27E-05
1420	0	2.73E-05	0	0	0	1	6.83E-06	1.37E-05	0	0	0	0.000153	0.000135	2	7.19E-05	8.34E-05
1421	0	4.41E-05	0	0.0001	0	2	3.61E-05	4.75E-05	0	0.00017	0	0	0	1	4.24E-05	8.48E-05

rk	MMs										
	MmNaOH-MM_liver_CNBrTi_1_dNSAF	MmNaOH-MM_liver_CNBrTi_2_dNSAF	RnNaOH-MM_liver_Ti_1_dNSAF	RnNaOH-MM_liver_Ti_2_dNSAF	RnNaOH-MM_liver_Ti_3_dNSAF	RnNaOH-MM_liver_Ti_4_dNSAF	RnNaOH-MM_liver_PK_1_dNSAF	RnNaOH-MM_liver_PK_2_dNSAF	Region_Note	GO_Component	GO_Function
1275	0	0	0	0	0	0	0	0	eukaryotic Raf Kinase		ATP binding; lipid binding;
1276	0	0	0	0	0	0	0	0	EF-hand, calcium binding		calcium ion binding
1277	0	0	0	0	0	0	0	0	NAD dependent	cytoplasm [pmid 11698403]	coenzyme binding; electron
1278	0	0	0	0	0	0	0	0	RNA recognition motif.	heterogeneous nuclear	double-stranded DNA binding
1279	0	0	0	0	0	0	0	0	Plasminogen Activator	cytoplasm	serine-type endopeptidase
1280	0	0	0	0	0	0	0	0	RNA polymerase Rpb5, N-	DNA-directed RNA	DNA binding; DNA-directed
1281	0	0	0	0	0	0	0	0		integral to plasma membrane	G-protein coupled receptor
1282	0	0	0	0	0	0	0	0	Serine/Threonine protein	integral to membrane; nucleus	ATP binding [pmid 8566796];
1283	0	0	0	0	0	0	0	0	WD40 domain, found in a	nucleus [pmid 14609955]	DNA-dependent ATPase
1284	0	0	0	0	0	0	0	0			
1285	0	0	0	0	0	0	0	0	Tetratricopeptide repeat	COPI vesicle coat; cytoplasm;	binding; protein transporter
1286	0	0	0	0	0	0	0	0	CTP:phosphocholine	membrane; soluble fraction	choline-phosphate
1287	0	0	0	0	0	0	0	0			
1288	0	0	0	0	0.000111	0	0	0	Cytidylyltransferase. This	nucleus	N-acylneuraminate
1289	0	0	0	0	0	0	0	0	DnaB-like helicase C	cytosol [pmid 10524211];	ATP binding; ATP-dependent
1290	0	0	0	0	0	0	0	0	WD40 domain, found in a	kinetochore [pmid 9660858];	protein binding [pmid
1291	0	0	0	0	0.000109	0	0	0	AAA-superfamily of	cytoplasm; cytosol; nucleus;	ATP binding; hydrolase
1292	0	0	0	0	0	0	0	0		nucleus	
1293	0	0	0	0	0	0	0	0	PAAD/DAPIN/Pyrin domain.	nucleus	DNA binding
1294	0	0	0	0	0	0	0	0	PseudoU_synth_hDyskerin	nucleolus [pmid 10556300];	isomerase activity;
1295	0	0	0	0	0	0	0	0	Ribosome anti-association	nucleus [pmid 9374518]	protein binding [pmid
1296	0	0	0	0	0	0	0	0		nucleus	transferase activity
1297	0	0	0	0	0	0	0	0	Dimethyladenosine	nucleus	methyltransferase activity;
1298	0	0	0	0	0	0	0	0	DnaJ domain. DnaJ	nucleus	heat shock protein binding;
1299	0	0	0	0	0	0	0	0	Stress-induced morphogen		
1300	0	0	0	0	0	0	0	0	Serine/Threonine protein		ATP binding; MAP kinase
1301	0	0	0	0	0	0	0	0			
1302	0	0	0	0	0	0	0	0	YchF subfamily. YchF is a	cytoplasm [pmid 11256614];	GTP binding; nucleotide
1303	0	0	0	0	0	0	0	0	Nucleosome assembly	endoplasmic reticulum [pmid	histone binding [pmid
1304	0	0	0	0	0	0	0	0		intracellular	double-stranded RNA binding
1305	0	0	0	0	0	0	0	0	Domain of unknown		
1306	0	0	0	0	0	0	0	0	Phosphoribosylpyrophosph		enzyme inhibitor activity
1307	0	0	0	0	0	0	0	0	Protein phosphatase 2A	integral to membrane [pmid	peptidase activity [pmid
1308	0	0	0	0	0	6.19E-05	0	0	GST_C family, Chloride	actin cytoskeleton [pmid	chloride ion binding; protein
1309	0	0	0	0	0	0	0	0			
1310	0	0	0	0	0	0	0	0	Leucine-rich repeats		transferase activity
1311	0	0	0	0	0	0	0	0	Rho4-like subfamily. Rho4	cytoskeleton [pmid	GTP binding; GTPase
1312	0	0	0	0	0	0	0	0	RBM1CTR (NUC064)	heterogeneous nuclear	nucleotide binding; protein
1313	0	0	0	0	0	0	0	0	pre-B-cell colony-enhancing		cytokine activity [pmid
1314	0	0	0	0	0	0	0	0	Domain I of the ABC		ATP binding [pmid 9790762];
1315	0	0	0	0	0	0	0	0			
1316	0	0	0	0	0	0	0	0	The CBS domain, named		IMP dehydrogenase activity
1317	0	0	0	0	0	0	0	0	Protein of unknown function		
1318	0	0	0	0	0	0	0	0	The eukaryotic Sm and Sm-	nucleus; ribonucleoprotein	RNA binding
1319	0	0	0	0	0	0	0	0	Ribonuclease HII [DNA	nucleus	endonuclease activity;
1320	0	0	0	0	0	0	0	0	SHC phosphotyrosine-	plasma membrane [pmid	insulin receptor binding [pmid
1321	0	0	0	0	0	0	0	0	Src homology 2 domains;		protein binding [pmid
1322	0	0	0	0	0	0	0	0	Protein-L-isoaspartate(D-	endoplasmic reticulum [pmid	methyltransferase activity;
1323	0	0	0	0	0	5.81E-05	0	0	TCP-1 (CTT or eukaryotic	cytoplasm	ATP binding; nucleotide
1324	0	0	0	0	0	0	0	0	Splicing factor 1 (SF1) K	membrane [pmid 1374686];	DNA binding [pmid 1374686];
1325	0	0	0	0	0	0	0	0	Activator of Hsp90 ATPase	cytoplasm; endoplasmic	ATPase stimulator activity;
1326	0	0	0	0	0	0	0	0	The developmentally	intracellular	GTP binding [pmid 7929244];
1327	0	0	0	0	0	0	0	0	Protein tyrosine	cytoplasm [pmid 7545170]	hydrolase activity; protein
1328	0	0	0	0	0	0	0	0	PWI domain; pfam01480	nucleus	DNA binding; RNA binding
1329	0	0	0	0	0	0	0	0	APOBEC-like N-terminal	nucleus	cytidine deaminase activity
1330	0	0	0	0	0	0	0	0	Phospholipase/Carboxylest		hydrolase activity
1331	0	0	0	0	0	0	0	0	Src homology 3 domains;	membrane	ATP binding; nucleotide
1332	0	0	0	0	0	0	0	0	Phosphomevalonate	cytoplasm; peroxisome [pmid	phosphomevalonate kinase
1333	0	0	0	0	0	0	0	0	Transcription factor	cytoplasm [pmid 8047162];	DNA binding
1334	0	0	0	0	0	0	0	0	EcAsnRS_like_N: N-	cytoplasm	asparagine-tRNA ligase
1335	0	0	0	0	0	0	0	0	Calponin homology (CH)	cytoskeleton	actin binding; protein binding
1336	0	0	0	0	0	0	0	0	Proliferating Cell Nuclear	DNA replication factor C	DNA binding; DNA
1337	0	0	0	0	0	0	0	0	PDIb' family, ERp44	endoplasmic reticulum;	electron carrier activity;
1338	0	0	0	0	0	0	0	0	Nuclear transport factor 2	cytoplasm [pmid 10969074];	nucleotide binding; receptor
1339	0	0	0	0	0	0	0	0	Importin beta binding	nucleus	binding; protein transporter
1340	0	0	0	0	0	0	0	0	alpha-crystallin-type heat	cell surface [pmid 12493773];	protein binding [pmid
1341	0	0	0	0	0	0	0	0	PLP dependent enzymes	cytoplasm [pmid 10496079];	
1342	0	0	0	0	0	0	0	0	Pleckstrin homology		insulin receptor binding;
1343	0	0	0	0	0	0	0	0	WD40 domain, found in a	eukaryotic translation	protein binding [pmid
1344	0	0	0	0	0	0	3.15E-05	0			
1345	0	0	0	0	0	0	0	0			
1346	0	0	0	0	0	0	0	0			
1347	0	0	0	0	0	0	0	0	Helicase superfamily c-	cytoplasm [pmid 11024137];	ATP binding; ATP-dependent
1348	0	0	0	0	0	0	0	0	Tetratricopeptide repeat	nucleus [pmid 1426632]	binding
1349	0	0	0	0	0	0	0	0			
1350	0	0	0	0	0	0	0	0			
1351	0	0	0	0	0	0	0	0	Golgi phosphoprotein 3	membrane	
1352	0	0	0	0	0	0	0	0	Protein of unknown function	clathrin vesicle coat; coated	protein binding
1353	0	0	0	0	0	0	0	0	PAK (p21 activated kinase)		ATP binding; nucleotide
1354	0	0	0	0	0	0	0	0	SAM / Pointed domain; A	nucleus	sequence-specific DNA
1355	0	0	0	0	0	0	0	0	Snf7. This family of proteins		
1356	0	0	0	0	0	0	0	0	MA3 domain. Domain in	cytoplasm [pmid 16357133];	protein binding [pmid
1357	0	0	0	0	0	0	0	0	HEAT repeat. The HEAT	cytoplasm [pmid 9298975];	binding; nuclear localization
1358	0	0	0	0	0	0	0	0	Glutaryl-CoA	mitochondrion [pmid 8541831]	FAD binding; glutaryl-CoA
1359	0	0	0	0	0	0	0	0	RecF/RecN/SMC N	caveola; cytosol [pmid	phosphatidylserine binding
1360	0	0	0	0	0	0	0	0	Serine/Threonine protein		ATP binding; MAP kinase
1361	0	0	0	0	0	0	0	0			
1362	0	0	0	0	0	0	0	0	Serine/Threonine protein		ATP binding; nucleotide
1363	0	0	0	0	0	0	0	0	'SWI3, ADA2, N-CoR and	chromosome; chromosome,	DNA binding; protein binding
1364	0	0	0	0	0	0	0	0		nucleus	
1365	0	0	0	0	0	0	0	0	Glyco_18 domain;		catalytic activity; cation
1366	0	0	0	4.64E-05	0	0	0	0	Serine/Threonine protein		ATP binding; nucleotide
1367	0	0	0	0	0	0	0	0			
1368	0	0	0	0	0	0	0	0			
1369	0	0	0	0	0	0	0	0	PAAD/DAPIN/Pyrin domain.		
1370	0	0	0	0	0	0	0	0	Predicted amidohydrolase		hydrolase activity, acting on
1371	0	0	0	0	0	0	0	0	Hydrolases of the		hydrolase activity
1372	0	0	0	0	0	0	0	0	Src homology 3 domains;	membrane; nucleus	kinase activity; protein
1373	0	0	0	0	0	0	0	0	Hsp70 protein. Hsp70		ATP binding; nucleotide
1374	0	0	0	0	0	0	0	0			
1375	0	0	0	0	0	0	0	0			
1376	0	0	0	0	0	0	0	0	Importin beta binding		binding; protein transporter
1377	0	0	0	0	0	0	0	0		extracellular space; integral to	binding; carrier activity
1378	0	0	0	0	0	0	0	0			
1379	0	0	0	0	0	0	0	0	Zinc-binding domain		metal ion binding; zinc ion
1380	0	0	0	0	0	0	0	0	Interferon Regulatory	nucleus	RNA polymerase II
1381	0	0	0	0	0	0	0	0	DnaJ domain. DnaJ		heat shock protein binding
1382	0	0	0	0	0	0	0	0			
1383	0	0	0	0	0	5.75E-05	0	0	LUC7 N_terminus. This		metal ion binding; zinc ion
1384	0	0	0	0	0	0	0	0	Hsp70 protein. Hsp70	cytoplasm	ATP binding [pmid 8335910];
1385	0	0	0	0	0	0	0	0	Ubiquitin activating enzyme	nucleus [pmid 10187858]	ATP-dependent protein
1386	0	0	0	0	0	0	0	0	MIT: domain contained	endosome [pmid 11563910];	ATP binding; ATPase
1387	0	0	0	0	0	0	0	0	Creatinase/Prolidase N-	cytoplasm	aminopeptidase activity;
1388	0	0	0	0	0	0	0	0	Phosphotyrosyl	protein phosphatase type 2A	phosphatase activator
1389	0	0	0	0	0	0	0	0	Src homology 3 domains;	intracellular; nucleus	diacylglycerol binding; metal
1390	0	0	0	0	0	0	0	0	RNA-metabolising metallo-	nucleus	RNA binding
1391	0	0	0	0	0	0	0	0	Grb7_RA The RA (RAS-	cytoskeleton	
1392	0	0	0	0	0	0	0	0	Ubiquitin activating enzyme	cytoplasm [pmid 8626687];	catalytic activity; ligase
1393	0	0	0	0	0	0	0	0			
1394	0	0	0	0	0	0	0	0	SAP domain. The SAP	nucleus	DNA binding; nucleotide
1395	0	0	0	0	0	0	0	0	Helicase superfamily c-	nucleolus [pmid 8614622];	ATP binding; ATP-dependent
1396	0	0	0	0	0	0	0	0	RNA recognition motif;	condensed nuclear	nucleotide binding; protein
1397	0	0	0	0	0	0	0	0	JAB/MPN domain; Domain	eukaryotic translation	protein binding [pmid
1398	0	0	0	0	0	0	0	0	Calcineurin-like	integral to membrane [pmid	acid phosphatase activity
1399	0	0	0	0	0	0	0	0	Protein of unknown function		
1400	0	0	0	2.62E-05	0	1.13E-05	2.35E-05	0		soluble fraction	enzyme regulator activity;
1401	0	0	0	0	0	0	0	0	RNA recognition motif;	nucleus [pmid 11256614];	nucleic acid binding;
1402	0	0	0	0	0	0	0	0	Opioid growth factor	membrane	opioid receptor activity [pmid
1403	0	0	0	0	0	0	0	0	Calcium/calmodulin	calcium- and calmodulin-	ATP binding; calcium- and
1404	0	0	0	0	0	0	0	0	Seryl-tRNA synthetase	mitochondrion [pmid	ATP binding [pmid
1405	0	0	0	0	0	0	0	0	SAM / Pointed domain; A	nucleus [pmid 9016666]	protein binding [pmid
1406	0	0	0	0	0	0	0	0	NeuB family. NeuB is the	cytoplasm [pmid 10749855]	N-acetylneuraminate
1407	0	0	0	0	0	0	0	0			
1408	0	0	0	0	0	0	0	0	Putative GTP-ase	nucleoplasm [pmid 10942595]	GTPase activator activity;
1409	0	0	0	0	0	0	0	0	AAA-superfamily of	cytoplasm; cytosol; nucleus;	ATP binding; ATPase activity
1410	0	0	0	0	0	0	0	0	WD40 domain, found in a	nucleus	receptor signaling protein
1411	0	0	0	0	0	0	0	0	Mre11 DNA-binding	nucleoplasm [pmid 9651580];	3'-5' exonuclease activity
1412	0	0	0	0	0	0	0	0			
1413	0	0	0	0	0	0	0	0	hypothetical protein;		carboxypeptidase activity;
1414	0	0	0	0	0	0	0	0	Glycine cleavage T-protein	cytoplasm	aminomethyltransferase
1415	0	0	0	0	0	0	0	0	Zinc-binding domain		metal ion binding; zinc ion
1416	0	0	0	0	0	0	0	0	Helicase superfamily c-	nucleus	ATP binding; ATP-dependent
1417	0	0	0	0	0	0	0	0	CAP-Gly domain.	microtubule	protein binding [pmid
1418	0	0	0	0	0	0	0	0	PCI domain. This domain	nucleus; signalosome complex	protein binding [pmid
1419	0	0	0	0	0	0	0	0	SAM / Pointed domain; A	nucleus	sequence-specific DNA
1420	0	0	0	2.16E-05	0	0	3.88E-05	0	Macro domain, BAL_like	nucleus [pmid 11110709]	NAD+ ADP-
1421	0	0	0	0	0	0	0	0			

rk	NEs detected # out of 10 runs	NEs dNSAF_A VG	MMs detected # out of 8 runs	MMs dNSAF_A VG	NEs:MMs	Detected in Mitochondria	ORTHO_GROUP	GENE_NAME	NET_NAME	Location & Gene Expression Data	Locus	Description	Length	MW	pI	PredHel	TMHMM_Topology	SIGNALP_HMM_TYPE (S= signal; A= Anchor; Q= none)	SIGNALP_HMM_POS	SIGNALP_HMM_PROB	RESTING LYMPHOCYTES NEs: HsNaOH-NE_NT_lymphocytes_CNBrTi_1_dNSAF	HsNaOH-NE_NT_lymphocytes_Ti_1_dNSAF	HsNaOH-NE_NT_lymphocytes_PK_1_dNSAF	HsSD-NE_NT_lymphocytes_Ti_1_dNSAF	HsSD-NE_NT_lymphocytes_PK_1_dNSAF	NT-dNEs Detected # Out of 5	NT-dNEs AVG	NT-dNEs SDV	PHA-TREATED LYMPHOCYTES NEs: HsNaOH-NE_PHA_lymphocytes_CNBrTi_1_dNSAF	HsNaOH-NE_PHA_lymphocytes_Ti_1_dNSAF	HsSD-NE_PHA_lymphocytes_Ti_1_dNSAF	HsSD-NE_PHA_lymphocytes_PK_1_dNSAF	PHA-dNEs Detected # Out of 5	PHA-dNEs AVG	PHA-dNEs dNSAF SDV	MMs: MmNaOH-MM_liver_CNBrTi_1_dNSAF	MmNaOH-MM_liver_CNBrTi_2_dNSAF	RnNaOH-MM_liver_Ti_1_dNSAF	RnNaOH-MM_liver_Ti_2_dNSAF	RnNaOH-MM_liver_Ti_3_dNSAF	RnNaOH-MM_liver_Ti_4_dNSAF	RnNaOH-MM_liver_PK_1_dNSAF	RnNaOH-MM_liver_PK_2_dNSAF	Region_Note	GO_Component	GO_Function
1422	3	3.92E-05	0	0	INF		ENSG00000100962	C20orf81			g	18034787	ref	NP_	phosphorylated CTD interacti	704	80670	7.2	0	Q	Q	0	0	0	0	5.02E-05	0	1	1.25E-05	2.51E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0		nucleus	
1423	3	3.9E-05	0	0	INF		ENSG00000115216	KNRP1			g	7019333	ref	NP_	nuclear receptor binding prot	505	59845	5.1	0	Q	Q	41	0	0	0	6.6E-05	0	1	1.65E-05	3.3E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Serine/Threonine protein	endomembrane system [pmid	ATP binding; protein binding
1424	3	3.89E-05	0	0	INF		ENSG00000235356	PRKAA1			g	94557299	ref	NP_	protein kinase, AMP-activate	574	65828	6.4	0	Q	Q	40	0	0	0	9.23E-05	0	1	2.31E-05	4.62E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Serine/Threonine protein	intracellular [pmid 8557660]	ATP binding; cAMP-
1425	3	3.88E-05	0	0	INF		ENSG00000133739	SWP70			g	93102364	ref	NP_	SWAP-70 protein [homo sapi	585	68598	5.9	0	Q	Q	25	0.005	0	0	0	0	1	7.91E-06	1.58E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Pleckstrin homology (PH)	membrane; nucleus	calcium ion binding; DNA
1426	3	3.86E-05	0	0	INF		ENSG00000083896	YTHDC1			g	7234750	ref	NP_	splicing factor YT521-B isofo	727	84700	6.2	0	Q	Q	0	0	0	0	7.29E-05	0	1	1.82E-05	3.64E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	YT521-B-like family. This	nucleus	
1427	3	3.84E-05	0	0	INF		ENSG00000129675	ARHGEF9			g	20027525	ref	NP_	Rac/Cdc42 guanine nucleotide	776	87499	6.1	0	Q	Q	26	0.136	0	0	0.00013	0	1	3.47E-05	8.83E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Src homology 3 domains;	intracellular [pmid 11017088]	GTPase activator activity
1428	3	3.84E-05	1	3.85E-06	9.964984		ENSG00000116120	FARSB			g	124028525	ref	NP_	phenylalanyl-tRNA synthetas	589	66116	6.8	0	Q	Q	21	0.002	0.000119	0	0.00015	0	1	6.72E-05	7.86E-05	0	0.000119	0	0	0	0	3.08E-05	0	0	0	0	0	0	0			
1429	3	3.78E-05	0	0	INF		ENSG00000108010	GLRX3			g	25113651	ref	NP_	glutaredoxin 3 [Homo sapien	335	37432	5.4	0	Q	Q	19	0.182	0.000139	0	0	0	1	3.48E-05	6.99E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
1430	3	3.74E-05	0	0	INF		ENSG00000082828	SNX1			g	23111032	ref	NP_	sorting nexin 1 isoform b [Ho	457	51813	5.6	0	Q	Q	16	0	0	0	0.00016	0	1	0.0000147	3.57E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Sorting nexin, N-terminal		phosphoinositide binding;
1431	3	3.72E-05	0	0	INF		ENSG00000155961	RAB39B			g	25188193	ref	NP_	RAB39B, member RAS onco	213	24622	7.8	0	Q	Q	21	0.033	0.00011	0	8.29E-05	0	2	4.81E-05	5.66E-05	0	0.000105	0	0	0	0	0	0	0	0	0	0	0	Rab39 subfamily. Found in	intracellular [pmid 11256614]	GTP binding; nucleotide
1432	3	3.71E-05	0	0	INF		ENSG00000166825	HNRPLL			g	7657549	ref	NP_	heterogeneous nuclear ribon	542	60696	7.1	0	Q	Q	0	0	0	0	0.00019	0	1	4.86E-05	8.97E-05	0	4.14E-05	0	0	0	0	0	0	0	0	0	0	0	0	RNA recognition motif;	nucleus; ribonucleoprotein	nucleotide binding; RNA
1433	3	3.71E-05	0	0	INF		ENSG00000119471	HSDL2			g	40254986	ref	NP_	hydroxysteroid dehydrogena	418	45395	8	0	S	S	22	0.544	0	0	0.00027	0	1	3.17E-05	6.34E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	SCP-2 sterol transfer		oxidoreductase activity;
1434	3	3.67E-05	0	0	INF		ENSG00000068079	FIS			g	24307901	ref	NP_	interferon-induced protein 35	288	31745	6.1	0	Q	Q	18	0.001	0	8.1E-05	0	0	1	2.02E-05	4.05E-05	0	0.000156	0	0	0	0	0	0	0	0	0	0	0	0	interferon-induced 35 kDa	nucleus [pmid 8288566]	protein binding [pmid
1435	3	3.59E-05	0	0	INF		ENSG00000138139	SDR42E1			g	24497105	ref	NP_	short chain dehydrogenase/	323	36853	7.4	0	Q	Q	26	0	0	0	0.00016	0	1	5.05E-05	1.26E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3-Alpha-hydroxysteroid	intracellular [pmid 11256614]	3-alpha-hydroxysteroid
1436	3	3.57E-05	0	0	INF		ENSG00000168066	SF1			g	42544123	ref	NP_	splicing factor 1 isoform 3 [Ho	548	59712	9.5	0	Q	Q	46	0	0	0	0	0	1	8.06E-06	1.61E-05	0	0.000164	0	0	0	0	0	0	0	0	0	0	0	0	Splicing factor 1 (SF1) K	nucleus [pmid 7912130];	metal ion binding [pmid
1437	3	3.56E-05	0	0	INF		ENSG00000155808	STRN			g	51423400	ref	NP_	striatin, calmodulin binding pr	780	86102	5.3	0	Q	Q	40	0.002	0	2.99E-05	0	0.000226	2	6.41E-05	0.000109	0	2.88E-05	0	0	0	0	0	0	0	0	0	0	0	0	WD40 domain, found in a		calmodulin binding [pmid
1438	3	3.54E-05	0	0	INF		ENSG00000104897	SF3A2			g	21361376	ref	NP_	splicing factor 3a, subunit 2 [	464	49256	9.6	0	Q	Q	23	0	0	0	0.000152	0	1	3.28E-05	6.56E-05	0	0	0.27E-05	0	0	0	0	0	0	0	0	0	0	0	U1-like zinc finger; Family	intracellular; nucleus; small	metal ion binding; nucleic
1439	3	3.52E-05	0	0	INF		ENSG00000185875	THNSL1			g	153792148	ref	NP_	threonine synthase-like 1 [Ho	743	83070	7.1	0	Q	Q	30	0	3.14E-05	0	0	0	1	7.85E-06	1.57E-05	0	0	4.39E-05	0.000207	0	0	0	0	0	0	0	0	0	0			
1440	3	3.48E-05	0	0	INF		ENSG00000198218	QRICH1			g	85700099	ref	NP_	glutamine-rich 1 [Homo sapie	776	86439	5.9	0	Q	Q	20	0	0	0	2.28E-05	0	1	5.69E-06	1.14E-05	0	5.78E-05	0	0	0	0	0	0	0	0	0	0	0	0	Caspase recruitment		
1441	3	3.48E-05	0	0	INF		ENSG00000143409	FMM63A			g	31377841	ref	NP_	hypothetical protein LOC557	469	51805	4.9	0	Q	Q	30	0	0	0	0.000113	0	1	2.82E-05	5.65E-05	0	9.57E-05	0	6.96E-05	0	0	0	0	0	0	0	0	0	0	Protein of unknown function		protein binding [pmid
1442	3	3.47E-05	0	0	INF		ENSG00000104419	NDRG1			g	37655183	ref	NP_	N-myc downstream regulatec	394	42835	5.8	0	Q	Q	19	0	0	0	0.000179	0	1	4.48E-05	8.97E-05	0	5.69E-05	0	4.14E-05	0	0	0	0	0	0	0	0	0	0	Ndr family. This family	nucleus	
1443	3	3.47E-05	0	0	INF		ENSG00000164916	FOXK1			g	52546554	ref	NP_	forkhead box K1 [Homo sapia	733	75437	9.3	0	S	S	45	0.984	0.9.55E-05	0	4.82E-05	0	2	3.53E-05	4.57E-05	0	0.000124	0	0.000124	0	0	0	0	0	0	0	0	0	0	Forkhead associated		sequence-specific DNA
1444	3	3.46E-05	0	0	INF		ENSG00000147416	ATP6V1B2			g	19913428	ref	NP_	vacuolar H+ATPase B2 [Hom	511	56501	5.8	0	Q	Q	28	0.01	0	4.56E-05	0	0.000104	2	3.73E-05	4.92E-05	0	0.000128	0	0	0	0	0	0	0	0	0	0	0	0	V/A-type ATP synthase	cytoplasm; proton-transporting	ATP binding; hydrogen-
1445	3	3.43E-05	0	0	INF		ENSG00000138594	TMOD3			g	7657649	ref	NP_	tropomodulin 3 (ubiquitous) [	352	36595	5.8	0	Q	Q	0	0	0	0	0.00011	0	1	2.51E-05	5.02E-05	0	0.000127	0	4.64E-05	0	0	0	0	0	0	0	0	0	0	Leucine-rich repeats	cytoskeleton; F-actin capping	actin binding; tropomyosin
1446	3	3.43E-05	0	0	INF		ENSG00000178685	PARP10			g	157738665	ref	NP_	poly (ADP-ribose) polymerase	1025	109998	5	0	Q	Q	18	0.004	0	9.1E-05	0	0.000103	2	4.86E-05	5.64E-05	0	0	0	0	7.96E-05	0	0	0	0	0	0	0	0	0			
1447	3	3.41E-05	0	0	INF		ENSG00000027075	PRKCH			g	28557781	ref	NP_	protein kinase C, eta [Homo	683	77829	7.8	0	Q	Q	29	0	0	0.000137	0	0	1	3.41E-05	6.83E-05	0	0	2.39E-05	0.000112	0	0	0	0	0	0	0	0	0	0	Protein kinase C conserved		ATP binding; diacylglycerol
1448	3	3.36E-05	0	0	INF		ENSG00000127996	PTCD1			g	45066019	ref	NP_	RNase/mitochondrial phosphat	366	39337	7.9	0	Q	Q	42	0.011	0	0.000122	0	9.65E-05	2	5.9E-05	3.50E-05	0	4.46E-05	0	0	0	0	0	0	0	0	0	0	0	RNA 2' phosphate cyclase	nucleoplasm [pmid 9184239]	RNA binding [pmid 9184239]
1449	3	3.3E-05	0	0	INF		ENSG00000120868	APAF1			g	32483359	ref	NP_	apoptotic peptidase activating	1248	141840	6.4	0	Q	Q	16	0	0	0	5.66E-05	0	1	1.42E-05	2.83E-05	0	5.39E-05	0	0	0	0	0	0	0	0	0	0	0	WD40 domain, found in a	cytosol [pmid 9267021];	ATP binding; caspase
1450	3	3.29E-05	1	5.78E-05	5.693317		ENSG00000142894	ZCCHC8P1			g	66346075	ref	NP_	BERP/NET1 mRNA binding pr	408	44965	8.6	0	Q	Q	21	0	0.000114	0	0	0	1	2.86E-05	5.72E-05	0	0	9.41E-05	0	0	0	4.63E-05	0	0	0	0	0	0	0	Hyaluronan / mRNA binding	nucleus	mRNA 3'-UTR binding [pmid
1451	3	3.27E-05	0	0	INF		ENSG00000122231	ELTF			g	54607120	ref	NP_	Ras-related GTP binding B a	570	78182	8.1	0	Q	Q	20	0	0	9.86E-05	0	9.95E-05	2	4.95E-05	5.72E-05	0	6.32E-05	0	0	0	0	0	0	0	0	0	0	0	Transferrin; smart00094	extracellular region;	ferric iron binding; metal ion
1452	3	3.12E-05	0	0	INF		ENSG00000134684	YARS			g	45079472	ref	NP_	tyrosyl-RNA synthetase [Ho	528	59144	7	0	Q	Q	24	0	0	0.000133	0	6.69E-05	2	4.99E-05	6.35E-05	0	6.18E-05	0	0	0	0	0	0	0	0	0	0	0	Tyrosyl-RNA synthetase	cytoplasm [pmid 9162081];	ATP binding; interleukin-8
1453	3	3.08E-05	0	0	INF		ENSG00000126510	KIAA1604			g	55747076	ref	NP_	hypothetical protein LOC577	938	105466	7	0	Q	Q	14	0	0	0.000205	0	1.95E-05	2	5.62E-05	9.98E-05	0	3.59E-05	0	0	0	0	0	0	0	0	0	0	0	MIF4G domain. MIF4G is		protein binding [pmid
1454	3	3.24E-05	0	0	INF		ENSG00000121390	FSPC1			g	109240550	ref	NP_	parasspectrile protein 1 [Homo	523	58744	6.7	0	Q	Q	49	0.107	0	4.46E-05	0	6.75E-05	2	2.8E-05	3.37E-05	0	0.000147	0	0	0	0	0	0	0	0	0	0	0	0			
1455	3	3.21E-05	0	0	INF		ENSG00000214122	PPP2R2A			g	4506019	ref	NP_	alpha isoform of regulatory s	447	51692	6.2	0	Q	Q	20	0	0	5.22E-05	0	0.000119	2	4.27E-05	5.62E-05	0	0	8.59E-05	0	0	0	0	0	0	0	0	0	0	0	WD40 domain, found in a	protein phosphatase type 2A	protein binding [pmid
1456	3	3.21E-05	0	0	INF		ENSG00034310	PRPF18			g	7661862	ref	NP_	pre-mRNA processing 18 [Hom	454	60831	5.1	0	Q	Q	22	0	0	5.14E-05	0	0.000156	2	5.16E-05	7.58E-05	0	4.94E-05	0	0	0	0	0	0	0	0	0	0	0	0	Serine/threonine	protein serine/threonine	hydrolase activity;
1457	3	3.2E-05	0	0	INF		ENSG00000196943	C14orf21			g	28212272	ref	NP_	hypothetical protein LOC161	636	69438	7.3	0	Q	Q	0	0	0	0.000147	0	8.33E-05	2	6.75E-05	7.13E-05	0	2.57E-05	0	0	0	0	0	0	0	0	0	0	0			binding; RNA binding
1458	3	3.18E-05	1	4.39E-06	7.238315		ENSG00000107816	TCOF1			g	57164975	ref	NP_	Treacher Collins-Franceschet	1411	144434	9	0	Q	Q	27	0.385	0	0.000115	0	7.51E-05	2	4.7E-05	5.76E-05	0	6.36E-05	0	1.59E-05	3.51E-05	0	0	0	0	0	0	0	0	Treacher Collins syndrome	nucleolus [pmid 15249688];	transporter activity [pmid
1459	3	3.16E-05	0	0	INF		ENSG00000168397	ELOC72737			g	113413583	ref	XP_	PREDICTED: similar to APG	380	42622	5.5	0	Q	Q	15	0	0	0	9.3E-05	0	1	2.32E-05	4.65E-05	0	5.9E-05	0	0.000101	2	4E-05	4.93E-05	0	0	0	0	0	0	0	Peptidase family C54;		
1460	3	3.16E-05	0	0	INF		ENSG00000182196	ARL6IP4			g	50409691	ref	NP_	SRp25 nuclear protein isoform	338	36211	11.2	0	Q	Q	45	0.012	0	0.000138	0	0	1	3.45E-05	6.9E-05	0	6.64E-05	0	4.83E-05	0	0	0	0	0	0	0	0	0	0			
1461	3	3.13E-05	0	0	INF		ENSG00000134308	RAB3GAP2			g	46246395	ref	NP_	Ras-related GTP binding B a	740	83184	8.4	0	Q	Q	0	0	0	0.000138	0	5.11E-05	2	3.48E-05	6.96E-05	0	8.48E-05	0	0	0	0	0	0	0	0	0	0	0	0	Gtr1/Rag4 G protein	cytoplasm; nucleus	GTP binding; nucleotide
1462	3	3.12E-05	0	0	INF		ENSG00000047249	ATP6V1H			g	47717100	ref	NP_	ATPase, H+ transporting, lys	465	54151	6.5	0	Q	Q	24	0.002	0	0.0001	0	0.000114	2	5.36E-05	6.21E-05	0	3.51E-05	0	0	0	0	0	0	0	0	0	0	0	V/ATPase_H, regulatory	hydrogen-transporting ATPase	ATP binding; ATPase activity
1463	3	3.11E-05	0	0	INF		ENSG00000160633	SAFB			g	21294343	ref	NP_	scaffold attachment factor B	915	102642	5.5	0	Q	Q	25	0.337	0	0	0.000205	1.93E-05	2	5.92E-05	9.99E-05	0	2.45E-05	0	0	0	0	0	0	0	0	0	0	0	SAF domain. The SAP	nucleus [pmid 1324173]	DNA binding; double-
1464	3	3.08E-05	0	0	INF		ENSG00000196591	HDAC2			g	11602641	ref	NP_	histone deacetylase 2 [Homo	482	55538	5.7	0	Q	Q	25	0.922	0	0.000152	0	0.000152	2	5.61E-05	7.25E-05	0	5.61E-05	0	0	0	0	0	0	0	0	0	0	0			
1465	3	3.07E-05	0	0	INF		ENSG00000173757	STAT5B			g	21618344	ref	NP_	signal transducer and activat	787	89866	6.1	0	Q	Q	15	0.003	0	0.000135	0	8.98E-05	2	5.63E-05	6.77E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	STAT protein, DNA binding	nucleus	calcium ion binding; signal
1466	3	3.07E-05	0	0	INF		ENSG00000163785	PPP1R1			g	47419939	ref	NP_	PP1G protein kinase 1 [Homo	655	73235	8.2	0	Q	Q	18	0	0	0	5.39E-05	0	1	1.34E-05	2.68E-05	0	7.47E-05	0.000117	0	0	0	0	0	0	0	0	0	0	0	Serine/Threonine protein	cytoplasm [pmid 11509566];	ATP binding [pmid
1467	3	3.07E-05	0	0	INF		ENSG00000149499	EML3			g	110227615	ref	NP_	echinoderm microtubule asso	896	95197	7.1	0	Q	Q	0	0	5.21E-05	0	0.000118	0	1	4.26E-05	5.61E-05	0	7.51E-05	0	0	0	0	0	0	0	0	0	0	0			
1468	3	3.06E-05	0	0	INF		ENSG00000145220	LYAR			g	8923398	ref	NP_	Ly1 antibody reactive homolo	379	43634	9.6	0	Q	Q	13	0	6.15E-05	0	0.00014	2	5.03E-05	6.63E-05	0	4.31E-05	0	0	0	0	0	0	0	0	0	0	0	0	L-YAR-type C2HC zinc	nucleolus [pmid 11256614];	metal ion binding; zinc ion
1469	3	3.03E-05	0	0	INF		ENSG00000177676	SLTM			g	62244004	ref	NP_	64kD subunit of estrogen induce	1016	115409	8.1	0	Q	Q	20	0.971	0	2.3E-05	0.000188	3.48E-05	2	5.18E-05	7.58E-05	0	6.07E-05	0	0	0	0	0	0	0	0	0	0	0	SAF domain. The SAP		DNA binding; nucleotide
1470	3	3.03E-05	0	0	INF		ENSG00000139613	SMARCC2			g	21237805	ref	NP_	SWI/SNF-related matrix-asso	1214	132879	5.7	0	Q	Q	0	0	0	0	0.000125	0	1	3.12E-05	6.24E-05	0	3.7E-05	0	8.07E-05	0	0	0	0	0	0	0	0	0	SWIRM domain. This	chromatin; nucleoplasm [pmid	chromatin binding; DNA
1471	3	3.01E-05	0	0	INF		ENSG00000102572	RSK4			g	110349733	ref	NP_	serine/threonine kinase 4a [H	437	47913	5.4	0	Q	Q	19	0.002	0	0.000144	0	5.88E-05	2	5.07E-05	6.82E-05	0	3.79E-05	0	0	0	0	0	0	0	0	0	0	0			
1472	3	2.99E-05	0	0	INF		ENSG00000114861	FOXP1			g	18644889	ref	NP_	forkhead box P1 isoform 1 [H	670	75835	6.7	0	Q	Q	0	0	0	0	5.22E-05	0	1	1.5E-05	2.99E-05	0	6.63E-05	0	0.000121	0	0	0	0	0	0	0	0	0	0	Forkhead (FH), also known	intracellular; nucleus	metal ion binding; nucleic
1473	3	2.98E-05	0	0	INF		ENSG00000180198	RCC1			g	11479664	ref	NP_	regulator of chromosome con	452	48146	8.2	0	Q	Q	43	0	0	5.16E-05	0	7.82E-05	2	3.24E-05	3.9E-05	0	0.000108	0	0	0	0	0	0	0	0	0	0	0			
1474	3	2.9E-05	0	0	INF		ENSG00000168685	IL7R			g	27886539	ref	NP_	interleukin 7 receptor [Homo	921	89784	6.6	0	Q	Q	0	0	0	0.000177	0	1.92E-05	2	3.29E-05	8.82E-05	0	3.54E-05	0	0	0	0	0	0	0	0	0	0	0	Rel homology domain	cytoplasm [pmid 8668213];	transcription factor activity
1475	3	2.89E-05	1	1.82E-06	15.92233		ENSG00000153207	AHCTF1P			g	87551265	ref	NP_	transcription factor ELYS [Ho	2266	252496	6.6	0	Q	Q	21	0.181	0	3.09E-05	0	0	1	7.72E-06	1.54E-05	0	0	0	0	0	0	0	0	0	0	1.45E-05	0	0	0		nucleus	DNA binding
1476	3	2.87E-05	0	0	INF		ENSG00000158290	CUL4B			g	12111429	ref	NP_	cullin 4B isoform 1 [Homo sa	913	103982	7.4	0	Q	Q	41	0	0	0	6.77E-05	0	1	1.69E-05	3.39E-05	0	3.58E-05	0.000126	0	0	0	0	0	0	0	0	0	0				
1477	3	2.84E-05	0	0	INF		ENSG00000154305	AMN3			g	22469398	ref	NP_	melanoma inhibitory activity 3	1258	144427	5.6	0	Q	Q	19	0	0	0	0	0	1	0	0	0	1.78E-05	0	7.05E-05	0	0	0	0	0	0	0	0	0	0	STAG domain. STAG	nucleus [pmid 9305759]	binding
1478	3	2.8E-05	0	0	INF		ENSG00000144589	STK11IP			g	112635474	ref	NP_	LKB1 interacting protein [Ho	1099	121401	5.4	0	Q	Q	51	0.2	0	2.12E-05	0	8.04E-05	2	2.54E-05	3.8E-05	0	0.000122	0	0	0	0	0	0	0	0	0	0	0				
1479	3	2.8E-05	0	0	INF		ENSG00000179399	ECSRX1			g	48428679	ref	NP_	oxidative-stress responsive 1	527	58022	6.4	0	Q	Q	37	0	0	8.85E-05	0	0	1	2.21E-05	4.43E-05	0	4.26E-05	0	0	0	0	0	0	0	0	0	0	0	0	Serine/Threonine protein		
1480	3	2.78E-05	0	0	INF		ENSG00000160752	FDPS			g	4503685	ref	NP_	farnesyl diphosphate synthas	419	48276	6.2	0	Q	Q	52	0.939	0	0	0	0	1	0	0	0	3.89E-05	0.000183	0	0	0	0	0	0	0	0	0	0	Trans-Isoprenyl		
1481	3	2.77E-05	0	0	INF		ENSG00000089639	GMIP			g	91208437	ref	NP_	GEM interacting protein [Hon	970	106683	5.7	0	Q	Q	0	0	4.81E-05	0	0.000127	2	4.39E-05	6.02E-05	0	4.63E-05	0	0	0	0	0	0	0	0	0	0	0	0	Fes/CIP4 homology	intracellular [pmid 12093360]	diacylglycerol binding; metal
1482	3	2.69E-05	0	0	INF		ENSG00000166189	RFS6			g	31881785	ref	NP_	ribosomal protein S6 kinase, p	775	84275	6.3	0	Q	Q	23	0.384	0	0	0	0	1	5.7E-06	1.14E-05	0	8.68E-05	0	0.000105	0	0	0	0	0	0	0	0	0	0			
1483	3	2.63E-05	0	0	INF		ENSG0000009989	EXOC1			g	30410716	ref	NP_	Sec3 isoform 2 [Homo sapien	879	100283	6.6	0	Q	Q	0	0	0	0.000141	0	0	1	3.52E-05	7.03E-05	0	5.1E-05	0	1.86E-05	0	0	0	0	0	0	0	0	0	0	RecF/RecN/SMC N	exocyst [pmid 11406615]	
1484	3	2.58E-05	0	0	INF		ENSG00000162777

rk	NEs detected # out of 10 runs	NEs dNSAF_A VG	MMs detected # out of 8 runs	MMs dNSAF_A VG	NEs:MMs	Detected in Mitochondria	ORTHO_GROUP	GENE_NAME	NET_NAME	Location & Gene Expression Data	Locus	Description	Length	MW	pI	PredHel	TMHMM_Topology	SIGNALP _HMM_TYPE (S= signal; A= Anchor; Q= none)	SIGNALP_HMM_P OS	SIGNALP_HMM_S PROB	RESTING LYMPHOCYTES NEs: HsNoOH-NE_NT_lymphocytes_CNBr_TI_1_dNSAF	HsNoOH-NE_NT_lymphocytes_TI_1_dNSAF	HsNoOH-NE_NT_lymphocytes_PK_1_dNSAF	HsSD-NE_NT_lymphocytes_TI_1_dNSAF	HsSD-NE_NT_lymphocytes_PK_1_dNSAF	NT-bNEs Detected # Out of 5	NT-nNEs dNSAF AVG	NT-bNEs dNSAF SDV	PHA-TREATED LYMPHOCYTES NEs: HsNoOH-NE_PHA_lymphocytes_CNBr_TI_1_dNSAF	HsNoOH-NE_PHA_lymphocytes_TI_1_dNSAF	HsNoOH-NE_PHA_lymphocytes_PK_1_dNSAF	HsSD-NE_PHA_lymphocytes_TI_1_dNSAF	HsSD-NE_PHA_lymphocytes_PK_1_dNSAF	PHA-bNEs Detected # Out of 5	PHA-nNEs dNSAF AVG	PHA-bNEs dNSAF SDV	MMs: MmNoOH-MM_liver_CNBrTI_1_dNSAF	MmNoOH-MM_liver_CNBrTI_2_dNSAF	RnNoOH-MM_liver_TI_1_dNSAF	RnNoOH-MM_liver_TI_2_dNSAF	RnNoOH-MM_liver_TI_3_dNSAF	RnNoOH-MM_liver_TI_4_dNSAF	RnNoOH-MM_liver_PK_1_dNSAF	RnNoOH-MM_liver_PK_2_dNSAF	Region_Note	GO_Component	GO_Function
1569	3	9.39E-06	0	0	NF		ENSG00000132153	DHX30			gi	20336290	ref	NP_	DEAH (Asp-Glu-Ala-His) box	1155	129438	8.2	0	O	O	0	0.004	0	4.04E-05	0	1.53E-05	0	2	1.39E-05	1.91E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Helicase superfamily c-	intracellular	ATP binding; ATP-dependent
1570	3	9.23E-06	0	0	NF		ENSG00000168488	ATXN2L			gi	32692640	ref	NP_	ataxin 2 related protein isofo	1062	111920	8.7	0	O	O	56	0.003	0	2.21E-05	0	2.69E-05	0	1	5.49E-06	1.1E-05	0	2.11E-05	1.55E-05	0	0	0	0	0	0	0	0	0	0	0	Ataxin-2 N-terminal region.	membrane	
1571	3	9.2E-06	0	0	NF		ENSG00000129355	CTDSPL			gi	32692640	ref	NP_	SR-related CTD-associated f	1312	139265	8.2	0	O	O	0	0	0	0	0	2.69E-05	0	1	6.73E-06	1.36E-05	0	3.42E-06	1.24E-05	0	0	0	0	0	0	0	0	0	0	0			
1572	3	9.19E-06	0	0	NF		ENSG00000113810	SMC4			gi|50658065|ref|NP_	SMC4 structural maintenance	1288	147182	6.8	0	O	O	0	0	0	1.81E-05	0	0	0	1	4.52E-06	9.05E-06	0	1.74E-05	3.8E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1573	3	9.02E-06	0	0	NF		ENSG00000135241	PNPLA8			gi|48525351|ref|NP_	patatin-like phospholipase do	782	88477	9.2	0	O	O	18	0.018	0	0	0	2.26E-05	0	1	5.65E-06	1.13E-05	0	2.87E-05	2.09E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1574	3	8.84E-06	0	0	NF		ENSG00000091009	RBM27			gi|16916834|ref|NP_	PREDICTED: similar to RNA	1060	118719	9.2	0	O	O	24	0.001	0	2.2E-05	0	3.33E-05	0	2	1.35E-05	1.66E-05	0	0	1.54E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1575	3	8.78E-06	0	0	NF		ENSG00000077235	GTF3C1			gi|10194324|ref|NP_	general transcription factor II	2109	238873	7.3	0	O	O	19	0.001	0	0	0	0	0	0	0	0	0	0	1.06E-05	2.32E-05	3.64E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1576	3	8.74E-06	0	0	NF		ENSG00000092098	RNF31			gi|19710543|ref|NP_	ring finger protein 31 [Homo	1072	119652	6.6	0	O	O	54	0	0	2.18E-05	0	3.3E-05	0	2	1.37E-05	1.64E-05	0	0	1.52E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1577	3	8.2E-06	0	0	NF		ENSG00000196604	KLOC653781			gi	11341320	ref	XP_	PREDICTED: similar to prote	1038	117390	6	0	O	O	40	0	0	0	0	6.03E-05	0	1	1.51E-05	3.02E-05	0	0	5.24E-06	0	0	0	0	0	0	0	0	0	0	0	0	Actin; An ubiquitous protein		
1578	3	8.12E-06	0	0	NF		ENSG00000112282	MED23			gi	28558969	ref	NP_	mediator complex subunit 23	1365	156193	7.4	0	O	O	16	0	0	0	0	1.29E-05	0	1	3.24E-06	6.47E-06	0	0	2.39E-05	2.81E-05	0	0	0	0	0	0	0	0	0	0	0		transcription factor complex	receptor activity;	
1579	3	7.91E-06	0	0	NF		ENSG00000196776	BMS1			gi	42281403	ref	NP_	BMS1-like, ribosome assembl	1282	146923	8.6	0	O	O	0	0	0	1.82E-05	0	2.76E-05	0	1	1.4E-05	1.37E-05	0	1.75E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	Bms1. Bms1 is an	nucleus	ATP binding; nucleotide
1580	3	7.39E-06	0	0	NF		ENSG00000198589	LRBA			gi|148233596|ref|NP_	LPS-responsive vesicle traffi	2863	319107	5.6	0	O	O	0	0	0	2.44E-05	0	0	0	1	6.11E-06	1.22E-05	0	7.84E-06	0	2.68E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1581	3	7.21E-06	0	0	NF		ENSG00000117713	ARID1A			gi	21264565	ref	NP_	AT rich interactive domain 1	2285	242042	6.7	0	O	O	15	0.096	0	0	0	0	0	0	0	0	0	0	9.82E-06	1.43E-05	3.39E-05	0	0	0	0	0	0	0	0	0	0	0	ARID/BRIGHT DNA binding	intracellular; nucleus;	binding; DNA binding [pmid
1582	3	6.99E-06	0	0	NF		ENSG00000132604	NUP42			gi	19923191	ref	NP_	nucleoporin 42 kDa [Homo	1980	240294	5.4	0	O	O	27	0.002	0	0	0	8.92E-06	0	1	2.23E-06	4.46E-06	0	0	8.24E-06	3.88E-05	0	0	0	0	0	0	0	0	0	0	0	0	Nuclear protein export	nucleus [pmid 9712826]	DNA binding [pmid 9712826]
1583	3	6.46E-06	0	0	NF		ENSG00000163029	SMC6			gi	13375848	ref	NP_	SMC6 protein [Homo sapiens]	1091	126325	7	0	O	O	0	0	0	0	0	1.62E-05	0	1	4.05E-06	8.1E-06	0	2.06E-05	1.5E-05	0	0	0	0	0	0	0	0	0	0	0	0	Eukaryotic SMC6 proteins;	chromosome; intracellular	ATP binding
1584	3	5.71E-06	0	0	NF		ENSG00000164366	NICTOR			gi	58914468	ref	NP_	apamycin-insensitive compa	1708	192215	7.5	0	O	O	0	0	1.37E-05	0	0	0	0	1	3.41E-06	8.83E-06	0	0	9.56E-06	2.26E-05	0	0	0	0	0	0	0	0	0	0	0	0			binding
1585	3	5.37E-06	0	0	NF		ENSG00000105357	NYH14			gi	16284304	ref	NP_	myosin , heavy chain 14 isofo	1905	227868	5.6	0	O	O	39	0.012	0	0	0	8.85E-06	0	1	2.21E-06	4.43E-06	0	1.12E-05	0	2.28E-05	0	0	0	0	0	0	0	0	0	0	0	0			
1586	3	5.09E-06	0	0	NF		ENSG00000184634	MED12			gi	10347429	ref	NP_	mediator of RNA polymerase	2177	243079	7.1	0	O	O	18	0	0	0	0	8.11E-06	0	1	2.03E-06	4.06E-06	0	0	1.5E-05	1.76E-05	0	0	0	0	0	0	0	0	0	0	0	0			
1587	3	4.91E-06	0	0	NF		ENSG00000135336	Magmas			gi	24767670	ref	NP_	hypothetical protein LOC228	1435	163920	8.8	0	O	O	29	0.007	0	0	0	1.22E-05	0	1	3.08E-06	6.15E-06	0	1.58E-05	1.14E-05	0	0	0	0	0	0	0	0	0	0	0	0		Golgi cis face	binding; intracellular	
1588	3	2.61E-06	0	0	NF		ENSG00000074755	ZZEF1			gi	73747881	ref	NP_	zinc finger, ZZ type with EF h	2961	331075	5.9	0	O	O	50	0	7.88E-06	0	0	0	0	1	1.97E-06	3.94E-06	0	0	0	1.3E-05	2	0.002036	0	0	0	0	0	0	0	0	0	0	Zinc finger, ZZ type. Zinc	anaphase-promoting complex	calcium ion binding; protein
1589	3	7.24E-07	0	0	NF		ENSG00000155657	TTN			gi	10349713	ref	NP_	titin isoform novex- 1 [Homo s	27051	3006786	5.8	0	O	O	24	0.116	0	4.31E-06	0	6.53E-07	0	2	1.24E-06	2.07E-06	0	9.29E-07	0	0	0	0	0	0	0	0	0	0	0	0	0			
1590	3	2.003302	0	0	NF		ENSG00000100097	LGALS1			gi	24504831	ref	NP_	beta-galactoside-binding lect	135	14716	5.5	0	O	O	18	0.027	0	0	0	0.005626	0	1	0.001402	0.002813	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Galectin/galactose-binding	cytoplasm [pmid 16130169]	signal transducer activity
1591	2	0.000959	0	0	NF		gi	169172248	refXP_	LOC100129427			gi	169172248	refXP_	PREDICTED: hypothetical p	79	8761	10.9	0	O	O	16	0	0.000053	0	0	0	0	1	0.000513	0.001026	0.005619	0	0	0	0	0	0	0	0	0	0	0	0	0			
1592	2	0.000848	0	0	NF		ENSG00000196154	S100A4			gi	88456516	ref	NP_	S100 calcium-binding protein	101	11728	8.1	0	O	O	22	0	0	0	0	0	0	1	0	0	0	0	0.000323	0.000645	0	0	0	0	0	0	0	0	0	0	0	S-100/CaBP-like domain;		calcium ion binding [pmid
1593	2	0.000628	0	0	NF		ENSG00000128803	HSPA2			gi	13676857	ref	NP_	heat shock 70kDa protein 2	639	70021	5.7	0	O	O	18	0.006	0	0.004998	0	0	0	1	0.00125	0.002499	0	0	2.56E-05	0	1	6.4E-06	1.28E-05	0	0	0	0	0	0	0	0	cell surface [pmid 12493773]	ATP binding; nucleotide	
1594	2	0.000559	1	3.51E-05	15.95551		ENSG00000124209	RAB22A			gi	10190714	ref	NP_	RAS-related protein RAB-22A	194	21655	8.2	0	O	O	18	0.003	0	0.000601	0.003874	0	0	1	0.001119	0.001858	0	0	0	0	0	0	0.00028	0	0	0	0	0	0	0	0	early endosome [pmid	GTP binding [pmid	
1595	2	0.000494	0	0	NF		ENSG00000169032	PRKAR2A			gi	4758790	ref	NP_	cAMP dependent protein kin	106	12517	9.1	0	O	O	0	0	0	0	0	0.000333	0	1	8.33E-05	0.000167	0	0	0	0.000362	0	0	0	0	0	0	0	0	0	0	0		membrane fraction;	NADH dehydrogenase	
1596	2	0.000471	0	0	NF		ENSG00000166710	B2M			gi	4757826	ref	NP_	beta-2-microglobulin precura	119	13715	6.5	0	O	O	21	-1	0	0	0	0.001188	0	1	0.000297	0.000594	0	0	0	0.002581	0	0	0	0	0	0	0	0	0	0	0	Immunoglobulin domain	extracellular region	MHC class I receptor activity
1597	2	0.000467	0	0	NF		ENSG00000156136	Magmas			gi	27363445	ref	NP_	mitochondrial-associated gra	125	13825	8.7	0	O	O	22	0.755	0	0.000187	0	0	0	1	4.66E-05	9.33E-05	0.003551	0	0	0	0	0	0	0	0	0	0	0	0	0	Pam16. The Pam16 protein	membrane; mitochondrion	heat shock protein binding
1598	2	0.000463	0	0	NF		ENSG00000100650	SRSF5			gi	8699144	ref	NP_	splicing factor, arginine/serine	272	31264	11.6	0	O	O	16	0	0	0	0.003454	0	0	1	0.000863	0.001727	0	0.000247	0	0	0	0	0	0	0	0	0	0	0	0	RNA recognition motif.	nucleus	nucleic acid binding;
1599	2	0.00041	0	0	NF		ENSG00000128609	NDUFA5			gi	4826848	ref	NP_	NADH dehydrogenase (ubiq	116	13459	6	0	O	O	20	0.031	0	0	0	0.002438	0	1	0.000609	0.001218	0	0	0.000844	0	0	0	0	0	0	0	0	0	0	0	0	ETC complex I subunit	mitochondrial inner	NADH dehydrogenase
1600	2	0.000276	0	0	NF		ENSG00000154148	KLOC284412			gi	19169255	ref	XP_	PREDICTED: similar to riboso	155	17138	10.6	0	O	O	0	0	0.000292	0	0	0	0	1	0.000146	0.000292	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
1601	2	0.000267	0	0	NF		ENSG00000124767	GLO1			gi	11840258	ref	NP_	glyoxalase I [Homo sapiens]	184	20778	5.3	0	O	O	24	0.002	0	0	0	0.000672	0	1	0.000168	0.000336	0	0	0	0.00146	0	0	0	0	0	0	0	0	0	0	0			
1602	2	0.000259	0	0	NF		ENSG00000197956	S100A6			gi	7657532	ref	NP_	S100 calcium-binding protein	90	10180	5.5	0	O	O	22	0.116	0	0	0	0	0	1	0	0	0	0	0.000363	0.001706	0	0	0	0	0	0	0	0	0	0	0	S-100/CaBP-like domain;	cytoplasm [pmid 10913138]	calcium ion binding [pmid
1603	2	0.00024	0	0	NF		ENSG00000084388	PGLYRP1			gi	45270362	ref	NP_	peptidoglycan recognition pr	196	21731	8.6	0	O	O	22	0	0	0.001917	0	0	0.003317	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Animal peptidoglycan	extracellular region [pmid	bacterial binding [pmid
1604	2	0.000239	0	0	NF		ENSG00000122565	LOC653972			gi	89038889	ref	XP_	PREDICTED: similar to Chro	183	20811	5.3	0	O	O	0	0	0	0	0	0.001287	0	1	0.000322	0.000644	0	0	0.000624	0	0	0	0	0	0	0	0	0	0	0	0	Chromo Shadow Domain;		
1605	2	0.000236	0	0	NF		ENSG00000135333	HCLS1			gi	4885450	ref	NP_	hematopoietic cell-specific Ly	486	20258	4.8	0	O	O	0	0	0	0	0	7.27E-05	0	1	1.82E-05	3.63E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Src homology 3 domains;	cytoplasm; DNA-directed RNA	protein binding; transcription
1606	2	0.000221	0	0	NF		NA ENSMUSG00000	SNRPD2			gi	29294624	ref	NP_	small nuclear ribonucleoprot	118	13527	9.9	0	O	O	0	0.001374	0.000395	0	0	0	0	2	0.000442	0.000649	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	The eukaryotic Sm and Sm-	nucleus; ribonucleoprotein	protein binding [pmid
1607	2	0.000205	0	0	NF		ENSG00000156467	UQCRB			gi	54541152	ref	NP_	ubiquinol-cytochrome c redu	111	13530	8.8	0	O	O	17	0	0.00021	0	0.001432	0	0	2	0.000411	0.000688	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Ubiquinol-cytochrome C	membrane; mitochondrial	oxidoreductase activity;
1608	2	0.000203	0	0	NF		ENSG00000166908	SOD1			gi	40354420	ref	NP_	superoxide dismutase 1, soluble	148	16187	8.8	0	O	O	32	0	0	0	0	0	0	1	0	0	0.001333	0	0.001333	0	0	0	0	0	0	0	0	0	0	0	0	Nucleoside 2-	Nucleoside 2-	
1609	2	0.000203	0	0	NF		ENSG00000196656	KLOC644928			gi	148225456	ref	NP_	hypothetical protein LOC644	115	12977	11.2	0	O	O	30	0	0	0.000203	0	0	0	1	5.07E-05	0.000101	0	0	0.001419	0	0	0	0	0	0	0	0	0	0	0	0			
1610	2	0.000189	0	0	NF		ENSG00000185651	UBE2L3			gi|4507789|ref|NP_	ubiquitin-conjugating enzyme	154	17862	8.5	0	O	O	0	0	0	0	0	0.001262	0	1	0.000315	0.000631	0	0	0	0.000249	0	0	0	0	0	0	0	0	0	0	0	6.23E-05	0.000125		ubiquitin ligase complex [pmid	enzyme binding [pmid
1611	2	0.000178	0	0	NF		ENSG00000125306	RPS12			gi	14277700	ref	NP_	ribosomal protein S12 [Homo	132	14515	7.2	0	O	O	20	0.002	0	0	0	0	0	1	0.000917	0.001833	0	0	0	0.001229	0	0	0	0	0	0	0	0	0	0	0	0.000595	cytosolic small ribosomal	RNA binding [pmid 18619993]	
1612	2	0.000176	1	1.01E-06	174.4423		ENSG00000109061	MYH1			gi	11552082	ref	NP_	myosin, heavy chain 1, skele	1939	223143	5.7	0	O	O	14	0	0.000243	0.001163	0	0	0	2	0.000352	0.000553	0	0	0	0	0	0	0	0.06E-06	0	0	0	0	0	0	0			
1613	2	0.000176	0	0	NF		ENSG00000196367	LTAF			gi	55767250	ref	NP_	lipopolysaccharide-induced T	161	17103	10.6	0	O	O	19	0.003	0	0.001197	0	0	0	1	0.000299	0.000583	0	0	0	0.000203	0	1	5.96E-05	0.000119	0	0	0	0	0	0	0	Possible membrane-		RNA polymerase II
1614	2	0.000174	0	0	NF		ENSG00000109534	NOLA1			gi	15011916	ref	NP_	nucleolar protein family A, m	217	22348	10.9	0	O	O	27	0.000747	0.000645	0	0	0	0	2	0.000348	0.000404	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Gar1 protein RNA binding	membrane fraction; nucleus;	cation channel activity [pmid
1615	2	0.000171	0	0	NF		ENSG00000170430	MGMT			gi	4505177	ref	NP_	O-6-methylguanine-DNA met	207	21646	8.1	0	O	O	0	0	0	0	0	0.000256	0	1	6.4E-05	0.000128	0	0	0	0	0	0	0	0	0.000113	0	0.000278	0.000556	0	0	0	6-O-methylguanine DNA	nucleus [pmid 2188979]	DNA binding [pmid 2188979]
1616	2	0.000169	0	0	NF		ENSG00000111669	CC2D2B			gi	11340763	ref	XP_	PREDICTED: hypothetical p	249	26943	8.1	0	O	O	37	0	0	0	0	0	0	1	0.00027	0.00054	0	0	0	0	0	0	0	0	0.000219	0.000511	0	0.000397	0.000794	0	0	0	Trioisophosphate		
1617	2	0.000163	0	0	NF		ENSG00000171262	FAM98B			gi	10945258	ref	NP_	family with sequence similari	433	45547	8.7	0	O	O	0	0	0	0	0	0.000245	0	1	6.12E-05	0.000122	0	0	0.001065	0	0	0	0	0	0	0	0.000264	0.000528	0	0	0			
1618	2	0.000159	0	0	NF		ENSG00000145165	RPL42			gi	28667717	ref	NP_	ribosomal protein L42 [Homo	102	11634	10.9	0	O	O	0	0	0	0	0	0.000144	0	1	3.11E-05	6.22E-05	0	0	0.000149	0	0	0	0	0	0	0	0.000298	0.000596	0	0	0		mitochondrial small ribosomal	structural constituent of	
1619	2	0.000155	0	0	NF		ENSG00000125868	DSTN			gi	28209569	ref	NP_	destrin isoform a [Homo sapi	165	18506	7.9	0	O	O	0	0	0	0	0	0.000545	0	1	0.000136	0.000273	0	0	0.000692	0	0	0	0	0	0	0	0.000173	0.000346	0	0	0	Actin depolymerisation	intracellular	actin binding
1620	2	0.000146	0	0	NF		ENSG00000181594	LOC645870			gi	16164514	ref	XP_	PREDICTED: similar to barni	86	9740	6.1	0	O	O	32	0.001	0	0	0	0.000411	0	1	0.000103	0.000205	0	0	0.000759	0	0	0	0	0	0	0	0.00019	0.00038	0	0	0			
1621	2	0.000144	0	0	NF		ENSG00000116674	ENO2			gi	5803011	ref	NP_	enolase 2 [Homo sapiens]	434	47269	5.4	0	O	O	0	0	0	0	0	0.000138	0	1	3.45E-05	6.9E-05	0.001025	0	0	0	0	0	0	0	0.000208	0.000415	0	0	0	0	Enolase: Enolases are	phosphopyruvate hydratase	lyase activity; magnesium
1622	2	0.000145	0	0	NF		ENSG00000197045	GMFB			gi	47584442	ref	NP_	glia maturation factor, beta [H	142	16713	5.3	0	O	O	0	0	0.000164	0	0.000995	0	0	2	0.00029	0.000477	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Actin depolymerisation	intracellular	actin binding; growth factor
1623	2	0.000145	0	0	NF		ENSG00000156482	RPL30			gi	4509631	ref	NP_	ribosomal protein L30 [Homo	115	12784	9.6	0	O	O	31	0	0	0	0	0.000307	0	1	7.68E-05	0.000154	0	0	0.000851	0	0	0	0	0	0	0	0.000213	0.000426	0	0	0	Ribosomal protein L30E	intracellular; ribosome	structural constituent of
1624	2	0.000138	0	0	NF		ENSG00000185275	UBE2L6			gi	19854272	ref	NP_	ubiquitin-conjugating enzyme	153	17769	7.9	0	O	O	0	0	0	0	0	0.000808	0	1	0.000202	0.000404	0	0	0	0	0	0	0	0	0	0	0.000283	0.000147	0	0	0	Ubiquitin-conjugating	membrane	ligase activity; protein
1625	2	0.000133	0	0	NF		ENSG00000117280	RAB7L1			gi	4506375	ref	NP_	RAB7, member RAS oncoge	203	23155	7.2	0	O	O	20	0.037	0	0.000402	0	0	0	1	0.000101	0.000201	0	0.000663	0	0	0	0	0	0	0	0	0.000166	0.000332	0	0	0	Rab3B/Rab32 subfamily.		GTP binding; GTPase
1626	2	0.000126	0	0	NF		ENSG00000138398	CALM1			gi	14240545	ref	NP_	EF-hand calcium binding dor	355	45494	7.5	0	O	O	28	0	5.9E-05	0.000067	0	0	0	1	0.000295	0.000467	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	EF-hand, calcium binding	membrane	calcium ion binding
1627	2	0.000126	0	0	NF		ENSG00000102978	POLR2C			gi	14702171	ref	NP_	DNA directed RNA polymera	275	31441	4.9	0	O	O	0	0	0	0	0.00045	0	0	1	0.000112	0.000225	0	0	0.000558	0	0	0	0	0	0	0	0.00014	0.000279	0	0	0	RNA polymerases D; DNA-	DNA-directed RNA	DNA binding; DNA-directed
1628	2	0.000119	0	0	NF		ENSG00000124578	HIST1H4G			gi	4504319	ref	NP_	histone cluster 1, H4g [Homo	98	11009	11.1	0	O	O	25	0	0.000952	0	0	0	0	1	0.000238	0.000476	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Histone H4, one of the four	nucleosome; nucleus	
1629	2	0.000118	0	0	NF		ENSG00000196141	PSMD8			gi	15663100	ref	NP_	proteasome 26S non-ATPase	350	39612	9.7	0	O	O	35	0.035	0	0	0	0.000977	0	1	0.000244	0.000488	0.41E-05	0	0	0	0	0	0	0	0	0	0.000325	0.000429	0	0	0			

																					RESTING LYMPHOCYTES NEs								PHA-TREATED LYMPHOCYTES NEs								MMs										
rk	NEs detected # out of 10 runs	NEs dNSAF_AVG	MMs detected # out of 8 runs	MMs dNSAF_AVG	NEs:MMs	Detected in Mitochondria	ORTHO_GROUP	GENE_NAME	NET_NAME	Location & Gene Expression Data	Locus	Description	Length	MW	pI	PredHel	TMHMM_Topology	SIGNALP_HMM_TYPE (S= signal; A= Anchor; Q= none)	SIGNALP_HMM_POS	SIGNALP_HMM_SPROB	HsNaOH-NE_NT_lymphocytes_CNBrTi_1_dNSAF	HsNaOH-NE_NT_lymphocytes_Ti_1_dNSAF	HsNaOH-NE_NT_lymphocytes_PK_1_dNSAF	HsSD-NE_NT_lymphocytes_Ti_1_dNSAF	HsSD-NE_NT_lymphocytes_PK_1_dNSAF	NT-bNEs Detected # Out of 5	NT-bNEs dNSAF AVG	NT-bNEs dNSAF SDV	HsNaOH-NE_PHA_lymphocytes_CNBrTi_1_dNSAF	HsNaOH-NE_PHA_lymphocytes_Ti_1_dNSAF	HsNaOH-NE_PHA_lymphocytes_PK_1_dNSAF	HsSD-NE_PHA_lymphocytes_Ti_1_dNSAF	HsSD-NE_PHA_lymphocytes_PK_1_dNSAF	PHA-bNEs Detected # Out of 5	PHA-bNEs dNSAF AVG	PHA-bNEs dNSAF SDV	MmNaOH-MM_liver_CNBrTi_1_dNSAF	MmNaOH-MM_liver_CNBrTi_2_dNSAF	RnNaOH-MM_liver_Ti_1_dNSAF	RnNaOH-MM_liver_Ti_2_dNSAF	RnNaOH-MM_liver_Ti_3_dNSAF	RnNaOH-MM_liver_Ti_4_dNSAF	RnNaOH-MM_liver_PK_1_dNSAF	RnNaOH-MM_liver_PK_2_dNSAF	Region_Note	GO_Component	GO_Function
1716	2	4.64E-05	0	0	INF		ENSG00000128394:	APOBEC3F			gi|22907044|ref|NP_	apolipoprotein B mRNA editi	373	45020	7.2	0	o	Q	0	0	0	6.25E-05	0	0	0	1	1.56E-05	3.13E-05	0	0	0	0	0.000309	1	7.72E-05	0.000154	0	0	0	0	0	0	0	0	APOBEC-like C-terminal		hydrolase activity; hydrolase
1717	2	4.61E-05	0	0	INF		ENSG00000087157:	PGS1			gi|84508631|ref|NP_	phosphatidylglycerophospha	556	62730	8.9	0	o	S	64	0.962	0	0	0	0	0	0	0	0	0	0.000161	0	0	0.000207	2	9.21E-05	0.000108	0	0	0	0	0	0	0	0	Phospholipase D. Active	endoplasmic reticulum [pmid	catalytic activity; CDP-
1718	2	4.6E-05	0	0	INF		ENSG00000076053:	RBM7			gi|9994185|ref|NP_0	RNA binding motif protein 7 [	266	30503	9.6	0	o	Q	20	0	0	0	0	0.000199	0	1	4.98E-05	9.96E-05	0	0.000169	0	0	0	1	4.22E-05	8.43E-05	0	0	0	0	0	0	0	0	RNA recognition motif;		nucleic acid binding;
1719	2	4.57E-05	0	0	INF		ENSG00000165775:	FUNDC2			gi|24371248|ref|NP_	FUN14 domain containing 2	189	20676	9.7	0	o	Q	23	0.037	0	0.000247	0	0	0	1	6.17E-05	0.000123	0	0.000119	0	0	0	1	2.97E-05	5.94E-05	0	0	0	0	0	0	0	0	FUN14 family. This family		
1720	2	4.45E-05	0	0	INF		ENSG00000163636:	PSMD6			gi|7661914|ref|NP_0	proteasome (prosome, macro	389	45531	5.6	0	o	Q	36	0	0	6E-05	0	0	0	1	1.5E-05	3E-05	0	0	0	0	0.000296	1	7.4E-05	0.000148	0	0	0	0	0	0	0	0	26S proteasome regulatory	cytosol; proteasome complex	ATPase activity [pmid
1721	2	4.43E-05	0	0	INF		ENSG00000131966:	ACTR10			gi|8923712|ref|NP_0	uncharacterized hypothalamu	417	46307	7.4	0	o	Q	31	0	0	0	0	0	0	0	0	0	0	0	0	7.83E-05	0.000276	2	8.86E-05	0.00013	0	0	0	0	0	0	0	0	Actin; An ubiquitous protein	cytoskeleton	protein binding; structural
1722	2	4.41E-05	0	0	INF		ENSG00000116701:	NCF2			gi|67189970|ref|NP_	neutrophil cytosolic factor 2 [	526	59762	6.2	0	o	Q	17	0.183	0.000308	4.43E-05	0	0	0	2	8.82E-05	0.000148	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Tetratricopeptide repeat	cytosol; soluble fraction	binding; electron carrier
1723	2	4.38E-05	0	0	INF		ENSG00000101898:	MCTS1			gi|169217217|ref|XP	PREDICTED: similar to Malig	156	17485	8.7	0	o	Q	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000105	0.000246	2	8.77E-05	0.000117	0	0	0	0	0	0	0	0			
1724	2	4.37E-05	0	0	INF		ENSG00000076248:	UNG			gi|19718751|ref|NP_	uracil-DNA glycosylase isofo	313	34645	9.3	0	o	Q	17	0.001	0	0	0	0	0	0	0	0	0	0	0	0.000104	0.000245	2	8.74E-05	0.000116	0	0	0	0	0	0	0	0	uracil-DNA glycosylase;	mitochondrion; nucleus [pmid	hydrolase activity, acting on
1725	2	4.37E-05	0	0	INF		ENSG00000132581:	SDF2			gi|14141195|ref|NP_	stromal cell-derived factor 2	211	23026	7.3	0	o	S	19	1	0	0	0	0.000167	0	1	4.19E-05	8.37E-05	0	0	0	0	0.000182	1	4.55E-05	9.1E-05	0	0	0	0	0	0	0	0	Domain in ryanodine and	extracellular space [pmid	dolichyl-phosphate-mannose-
1726	2	4.36E-05	0	0	INF		ENSG00000084072:	PPIE			gi|45439316|ref|NP_	peptidylprolyl isomerase E is	296	33085	5.6	0	o	Q	25	0.002	0	0	0	0.000239	0	1	5.97E-05	0.000119	0	0	0	0.00011	0	1	2.76E-05	5.51E-05	0	0	0	0	0	0	0	0	cyclophilin_ABH_like:	nucleus [pmid 11313484]	cyclosporin A binding [pmid
1727	2	4.31E-05	0	0	INF		ENSG00000165416:	SUGT1			gi|5730041|ref|NP_0	suppressor of G2 allele of SK	333	37805	5.2	0	o	Q	22	0.031	0	0.00021	0	0	0	1	5.25E-05	0.000105	0	0.000135	0	0	0	1	3.37E-05	6.74E-05	0	0	0	0	0	0	0	0	Tetratricopeptide repeat	kinetochore [pmid 10445024];	binding
1728	2	4.28E-05	0	0	INF		ENSG00000152700:	SAR1B			gi|75709204|ref|NP_	SAR1a gene homolog 2 [Hor	198	22410	6.1	0	o	Q	18	0.004	0	0.000236	0	0.000107	0	2	8.57E-05	0.000112	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Sar1 subfamily. Sar1 is an	endoplasmic reticulum;	GTP binding; magnesium ion
1729	2	4.25E-05	0	0	INF		ENSG00000185164:	NOMO2			gi|27734709|ref|NP_	nodal modulator 2 isoform 2	1222	134192	5.8	0	o	S	32	0.996	0	0	0	0.000101	0	1	2.53E-05	5.06E-05	0	0.000239	0	0	0	1	5.97E-05	0.000119	0	0	0	0	0	0	0	0	Predicted outer membrane	endoplasmic reticulum;	catalytic activity; ferric iron
1730	2	4.23E-05	0	0	INF		ENSG00000205405:	LOC389217			gi|169166302|ref|XP	PREDICTED: similar to temp	296	34331	4.6	0	o	Q	21	0.01	0	7.88E-05	0	0	0	1	1.97E-05	3.94E-05	0	0	0	0	0.000259	1	6.48E-05	0.00013	0	0	0	0	0	0	0	0			
1731	2	4.23E-05	0	0	INF		ENSG00000116747:	TROVE2			gi|108796056|ref|NP	TROVE domain family, mem	525	59270	8.5	0	o	Q	0	0	0	0	0	0	0	0	0	0	0	0.000214	0	0.000124	0	2	8.45E-05	0.000104	0	0	0	0	0	0	0	0			
1732	2	4.2E-05	0	0	INF		ENSG00000174740:	LOC100131622			gi|169217445|ref|XP	PREDICTED: hypothetical pr	382	43331	9.5	0	o	Q	28	0	0	0	0	0.000277	0	1	6.94E-05	0.000139	0	5.87E-05	0	0	0	1	1.47E-05	2.94E-05	0	0	0	0	0	0	0	0			
1733	2	4.19E-05	0	0	INF		ENSG00000146576:	C7orf26			gi|21362070|ref|NP_	hypothetical protein LOC790	449	50047	7.7	0	o	Q	35	0	0	0	0	7.87E-05	0	1	1.97E-05	3.93E-05	0	0	0	0	0.000256	1	6.41E-05	0.000128	0	0	0	0	0	0	0	0			
1734	2	4.18E-05	0	0	INF		ENSG00000163002:	NUP35			gi|31982904|ref|NP_	nucleoporin 35kDa [Homo sa	326	34774	9.1	0	o	Q	50	0.008	0	0	0	0.000217	0	1	5.42E-05	0.000108	0	0	0	0	0.000118	1	2.94E-05	5.89E-05	0	0	0	0	0	0	0	0	MPPN (rrm-like) domain.	nuclear pore; nucleus	
1735	2	4.13E-05	0	0	INF		ENSG00000144034:	TPRKB			gi|7705590|ref|NP_0	TP53RK binding protein [Hor	175	19661	6.8	0	o	Q	27	0	0	0	0	0.000202	0	1	5.05E-05	0.000101	0	0.000128	0	0	0	1	3.2E-05	6.41E-05	0	0	0	0	0	0	0	0	Kinase binding protein CGI-	cytosol [pmid 12659830]	protein binding [pmid
1736	2	4.12E-05	0	0	INF		ENSG00000116649:	SRM			gi|63253298|ref|NP_	spermidine synthase [Homo	302	33825	5.5	0	o	Q	35	0.001	0	0.000154	0	0.000175	0	2	8.25E-05	9.56E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Spermine/spermidine		spermidine synthase activity
1737	2	4.11E-05	0	0	INF		ENSG00000170619:	COMMD5			gi|154800418|ref|NP	COMM domain containing 5	224	24670	7	0	o	Q	20	0.079	0	0	0	0.000158	0	1	3.94E-05	7.89E-05	0	0	0	0	0.000171	1	4.28E-05	8.57E-05	0	0	0	0	0	0	0	0			
1738	2	4.11E-05	0	0	INF		ENSG00000115073:	ACTR1B			gi|11342680|ref|NP_	ARP1 actin-related protein 1	376	42293	6.4	0	o	Q	20	0	0	0	0	0	0	0	0	0	0	8.95E-05	0	0	0.000239	2	8.21E-05	0.000113	0	0	0	0	0	0	0	0	Actin; An ubiquitous protein	actin filament; cytoplasm	ATP binding; nucleotide
1739	2	4.04E-05	0	0	INF		ENSG00000101986:	ABCD1			gi|7262393|ref|NP_0	ATP-binding cassette, sub-fa	745	82937	8.9	0	o	S	35	0.952	0	0	0	0	0	0	0	0	0	0.000301	0	2.19E-05	0	2	8.08E-05	0.000147	0	0	0	0	0	0	0	0	ABC transporter	integral to membrane; integral	ATP binding; ATPase
1740	2	4.03E-05	0	0	INF		ENSG00000213024:	NUP62			gi|24497609|ref|NP_	nucleoporin 62kDa [Homo sa	522	53255	5.3	0	o	Q	27	0.045	0	0	0	0.000102	0	1	2.54E-05	5.08E-05	0	0	0	0	0.000221	1	5.52E-05	0.00011	0	0	0	0	0	0	0	0	Nsp1-like C-terminal region.	cytoplasm [pmid 10373430];	chromatin binding [pmid
1741	2	4E-05	0	0	INF		ENSG00000133275:	CSNK1G2			gi|153791733|ref|NP	casein kinase 1, gamma 2 [H	415	47457	9.1	0	o	Q	0	0	0	0	0	4.26E-05	0	1	1.06E-05	2.13E-05	0	0	0	0	0.000278	1	6.94E-05	0.000139	0	0	0	0	0	0	0	0			
1742	2	3.99E-05	0	0	INF		ENSG00000091732:	ZC3HC1			gi|66348045|ref|NP_	zinc finger, C3HC type 1 [Ho	502	55262	5.6	0	o	Q	20	0.003	0	0	0	0.000141	0	1	3.52E-05	7.04E-05	0	0.000179	0	0	0	1	4.47E-05	8.94E-05	0	0	0	0	0	0	0	0	C3HC zinc finger-like. This	nucleus	metal ion binding; protein
1743	2	3.97E-05	0	0	INF		ENSG00000136104:	RNASEH2B			gi|13375742|ref|NP_	ribonuclease H2, subunit B [	312	35105	9.1	0	o	Q	16	0	0	0	0	0	0	0	0	0	0	7.19E-05	0	0	0.000246	2	7.95E-05	0.000116	0	0	0	0	0	0	0	0		nucleus	
1744	2	3.92E-05	0	0	INF		ENSG00000197345:	MRPL21			gi|31652226|ref|NP_	mitochondrial ribosomal prote	205	22815	9.9	0	o	S	17	0.94	0	0.000228	0	8.62E-05	0	2	7.84E-05	0.000107	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Ribosomal prokaryotic L21	intracellular; ribosome	RNA binding; structural
1745	2	3.89E-05	0	0	INF		ENSG00000117614:	SYF2			gi|46371998|ref|NP_	SYF2 homolog, RNA splicing	201	23568	8.1	0	o	Q	21	0.108	0	0	0	8.79E-05	0	1	2.2E-05	4.39E-05	0	0.000223	0	0	0	1	5.58E-05	0.000112	0	0	0	0	0	0	0	0	SYF2 splicing factor.	nucleus [pmid 11118353]	protein binding [pmid
1746	2	3.87E-05	0	0	INF		ENSG00000062582:	MRPS24			gi|15721937|ref|NP_	mitochondrial ribosomal prote	167	19015	9.4	0	o	S	17	0.836	0	0	0	0.000212	0	1	5.29E-05	0.000106	0	0	0	9.77E-05	0	1	2.44E-05	4.89E-05	0	0	0	0	0	0	0	0		mitochondrial small ribosomal	
1747	2	3.87E-05	0	0	INF		ENSG00000123908:	EIF2C2			gi|29171734|ref|NP_	eukaryotic translation initiatio	859	97208	9.2	0	o	Q	21	0.01	0	0	0	4.11E-05	0	1	1.03E-05	2.06E-05	0	0	0	0	0.000268	1	6.7E-05	0.000134	0	0	0	0	0	0	0	0	PAZ domain,		protein binding [pmid
1748	2	3.85E-05	0	0	INF		ENSG00000126088:	UROD			gi|71051616|ref|NP_	uroporphyrinogen decarboxy	367	40787	6.1	0	o	Q	0	0	0	6.36E-05	0	0	0	1	1.59E-05	3.18E-05	0	0.000245	0	0	0	1	6.11E-05	0.000122	0	0	0	0	0	0	0	0	Uroporphyrinogen		lyase activity;
1749	2	3.81E-05	0	0	INF		ENSG00000110871:	COQ5			gi|116063536|ref|NP	coenzyme Q5 homolog, meth	327	37140	6.9	0	o	S	19	0.67	0	0.000143	0	0.000162	0	2	7.62E-05	8.83E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
1750	2	3.8E-05	0	0	INF		ENSG00000110619:	CARS			gi|10835051|ref|NP_	cysteinyl-tRNA synthetase is	748	85473	6.7	0	o	Q	30	0	0	0	0	4.72E-05	0	1	1.18E-05	2.36E-05	0	0	0	0	0.000257	1	6.42E-05	0.000128	0	0	0	0	0	0	0	0	This is the catalytic core	cytoplasm [pmid 7987009];	ATP binding; cysteine-tRNA
1751	2	3.76E-05	0	0	INF		ENSG00000102218:	RP2			gi|5902060|ref|NP_0	XRP2 protein [Homo sapiens	350	39642	5.1	0	o	Q	0	0	0	0.0002	0	0.000101	0	2	7.52E-05	9.58E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Nucleoside diphosphate		ATP binding; nucleoside
1752	2	3.74E-05	0	0	INF		ENSG00000135632:	SMYD5			gi|154689858|ref|NP	SMYD family member 5 [Hor	418	47341	5	0	o	Q	20	0.39	0	0	0	8.45E-05	0	1	2.11E-05	4.23E-05	0	0.000215	0	0	0	1	5.37E-05	0.000107	0	0	0	0	0	0	0	0			
1753	2	3.73E-05	1	4.61E-06	8.088435		ENSG00000102786:	INTS6			gi|11024694|ref|NP_	integrator complex subunit 6	887	100390	8.6	0	o	Q	21	0.067	0	0	0.000212	0	0	1	5.3E-05	0.000106	0	0	0	0	8.66E-05	1	2.16E-05	4.33E-05	0	0	0	0	0	0	3.69E-05	0	Von Willebrand factor type	integrator complex [pmid	helicase activity; peptidase
1754	2	3.68E-05	0	0	INF		ENSG00000092054:	MYH7			gi|115496169|ref|NP	myosin, heavy chain 7, cardi	1935	223095	5.8	0	o	Q	20	0	0	0.000272	0	0	0	1	6.79E-05	0.000136	0	2.32E-05	0	0	0	1	5.8E-06	1.16E-05	0	0	0	0	0	0	0	0			
1755	2	3.67E-05	0	0	INF		ENSG00000117906:	RCN2			gi|4506457|ref|NP_0	reticulocalbin 2, EF-hand cal	317	36876	4.4	0	o	S	26	1	0	0	0	0.000223	0	1	5.57E-05	0.000111	0	7.08E-05	0	0	0	1	1.77E-05	3.54E-05	0	0	0	0	0	0	0	0	EF-hand, calcium binding	endoplasmic reticulum [pmid	calcium ion binding [pmid
1756	2	3.64E-05	0	0	INF		ENSG00000172315:	TP53RK			gi|41327715|ref|NP_	p53-related protein kinase [H	253	28160	9.5	0	o	Q	46	0	0	0	0	0.00014	0	1	3.49E-05	6.98E-05	0	0	0	0	0.000152	1	3.79E-05	7.59E-05	0	0	0	0	0	0	0	0	Serine/Threonine protein	nucleus	ATP binding; nucleotide
1757	2	3.62E-05	0	0	INF		ENSG00000075188:	NUP37			gi|34222121|ref|NP_	nucleoporin 37kDa [Homo sa	326	36708	5.9	0	o	Q	0	0	0	0	0	5.42E-05	0	1	1.35E-05	2.71E-05	0	0	0	0	0.000236	1	5.89E-05	0.000118	0	0	0	0	0	0	0	0	WD40 domain, found in a	nucleus	
1758	2	3.58E-05	0	0	INF		ENSG00000085377:	PREP			gi|41349456|ref|NP_	prolyl endopeptidase [Homo	710	80700	5.9	0	o	Q	0	0	0	0	0	0.000124	0	1	3.11E-05	6.22E-05	0	0	0	0	0.000162	1	4.06E-05	8.11E-05	0	0	0	0	0	0	0	0	Serine proteases of the	cytoplasm [pmid 9695945]	hydrolase activity; prolyl
1759	2	3.57E-05	0	0	INF		ENSG00000105373:	SNORD23			gi|7657130|ref|NP_0	glioma tumor suppressor can	478	54417	10.4	0	o	Q	33	0	0	9.76E-05	0	0	0	1	2.44E-05	4.88E-05	0	0.000188	0	0	0	1	4.69E-05	9.39E-05	0	0	0	0	0	0	0	0	Nop53 (60S ribosomal	intracellular [pmid 10196275];	
1760	2	3.52E-05	1	4.28E-06	8.235576		ENSG00000108344:	PSMD3			gi|25777612|ref|NP_	proteasome 26S non-ATPase	534	60978	8.4	0	o	Q	0	0	0	0	0	6.62E-05	0	1	1.65E-05	3.31E-05	0	0	0	0	0.000216	1	5.39E-05	0.000108	0	0	0	3.42E-05	0	0	0	0	Proteasome regulatory	cytosol; proteasome complex	binding
1761	2	3.44E-05	0	0	INF		ENSG00000152778:	IFIT5			gi|6912630|ref|NP_0	interferon-induced protein wit	482	55847	7.4	0	o	Q	26	0	0	0	0	3.66E-05	0	1	9.16E-06	1.83E-05	0	0	0	0	0.000239	1	5.97E-05	0.000119	0	0	0	0	0	0	0	0	Tetratricopeptide repeat		binding
1762	2	3.41E-05	0	0	INF		ENSG00000185115:	NDNL2			gi|20162572|ref|NP_	necdin-like 2 [Homo sapiens]	304	34308	9.3	0	o	Q	0	0	0	0	0	5.81E-05	0	1	1.45E-05	2.91E-05	0	0	0	0.000215	0	1	5.37E-05	0.000107	0	0	0	0	0	0	0	0	MAGE family. The MAGE	nucleus	
1763	2	3.4E-05	0	0	INF		ENSG00000153914:	SFRS12			gi|116089325|ref|NP	splicing factor, arginine/serin	624	71650	10.2	0	o	Q	23	0.308	0	0	0	0.000142	0	1	3.54E-05	7.08E-05	0	0	0	0.000131	0	1	3.27E-05	6.54E-05	0	0	0	0	0	0	0	0			
1764	2	3.4E-05	0	0	INF		ENSG00000115233:	PSMD14			gi|5031981|ref|NP_0	26S proteasome-associated	310	34577	6.5	0	o	Q	16	0.026	0	0	0	0.000114	0	1	2.85E-05	5.7E-05	0	0	0	0.000158	0	1	3.95E-05	7.9E-05	0	0	0	0	0	0	0	0	JAB/MPN domain; Domain	cytosol; proteasome complex	
1765	2	3.4E-05	0	0	INF		ENSG00000106305:	MCA2			gi|11125770|ref|NP_	JTV1 [Homo sapiens]	320	35349	8.2	0	o	Q	33	0	0	0	0	0.000221	0	1	5.52E-05	0.00011	0	0	0	0.000051	0	1	1.28E-05	2.55E-05	0	0	0	0	0	0	0	0	GST_C family, JTV-1		damaged DNA binding
1766	2	3.39E-05	0	0	INF		ENSG00000117308:	GALE			gi|56237023|ref|NP_	UDP-galactose-4-epimerase	348	38282	6.7	0	o	Q	26	0.014	0	0	0	5.08E-05	0	1	1.27E-05	2.54E-05	0	0	0	0	0.000221	1	5.52E-05	0.00011	0	0	0	0	0	0	0	0	UDP-glucose 4-epimerase		catalytic activity; coenzyme
1767	2	3.34E-05	0	0	INF		ENSG00000205302:	SNX2			gi|23111038|ref|NP_	sorting nexin 2 [Homo sapier	519	58471	5.1	0	o	Q	0	0	0	4.49E-05	0	0	0	1	1.12E-05	2.25E-05	0	0	0	0	0.000222	1	5.55E-05	0.000111	0	0	0	0	0	0	0	0	Sorting nexin, N-terminal		phosphoinositide binding;
1768	2	3.33E-05	0	0	INF		ENSG00000100462:	PRMT5			gi|20070220|ref|NP_	protein arginine methyltransf	637	72684	6.3	0	o	Q	18	0.139	0	0	0	0	0	0	0	0	0	0	0	2.56E-05	0.000241	2	6.67E-05	0.000117	0	0	0	0	0	0	0	0	PRMT5 arginine-N-	cytoplasm	histone-arginine N-
1769	2	3.26E-05	0	0	INF		ENSG00000169499:	PLEKHA2			gi|154146216|ref|NP	pleckstrin homology domain	425	47245	8.7	0	o	Q	0	0	0	0.00022	0	4.16E-05	0	2	6.53E-05	0.000105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
1770	2	3.26E-05	0	0	INF		ENSG00000183093:	MRPL12			gi|27436901|ref|NP_	mitochondrial ribosomal prote	198	21348	8.9	0	o	S	21	0.861	0	0	0	0.000178	0	1	4.46E-05	8.92E-05	0	0	0	8.24E-05	0	1	2.06E-05	4.12E-05	0	0	0	0	0	0	0	0	50S ribosomal protein	intracellular; mitochondrial	RNA binding [pmid 8626705];
1771	2	3.23E-05	0	0	INF		ENSG00000081059:	TCF7			gi|42518080|ref|NP_	transcription factor 7 (T-cell s	384	41552	7.5	0	o	Q	19	0	0	0	0	4.6E-05	0	1	1.15E-05	2.3E-05	0	0	0	0.000213	0	1	5.31E-05	0.000106	0	0	0	0	0	0	0	0	N-terminal CTNNB1 binding	nucleus	DNA binding; RNA
1772	2	3.23E-05	0	0	INF		ENSG00000183386:	FHL3			gi|54112385|ref|NP_	four and a half LIM domains	280	31192	6.2	0	o	Q	0	0	0	8.33E-05	0	0	0	1	2.08E-05	4.17E-05	0	0	0	0.000175	0	1	4.37E-05	8.74E-05	0	0	0	0	0	0	0	0	Zinc-binding domain		metal ion binding; zinc ion
1773	2	3.22E-05	0	0	INF		ENSG00000185721:	DRG1			gi|4758796|ref|NP_0	developmentally regulated G	367	40542	8.9	0	o	Q	19	0	0	0	0	4.81E-05	0	1	1.2E-05	2.41E-05	0	0	0	0	0.000209	1	5.23E-05	0.000105	0	0	0	0	0	0	0	0	The developmentally	intracellular	GTP binding; nucleotide
1774	2	3.21E-05	0	0	INF		ENSG00000133731:	IMPA1			gi|5031789|ref|NP_0	inositol(myo)-1(or 4)-monoph	277	30189	5.3	0	o	Q	25	0.001	0	0	0	0	0	0	0	0	0	0	0	0.000118	0.000139	2	6.41E-05	7.45E-05	0	0	0	0	0	0	0	0	IMPase, inositol		hydrolase activity; inositol-
1775	2	3.2E-05	0	0	INF		ENSG00000139793:	MBNL2			gi|21464125|ref|NP_	muscleblind-like 2 isoform 1	367	39334	8.9	0	o	Q	29	0.001	0	6.36E-05	0	0.000193	0	2	6.4E-05	9.08E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	zinc finger; smart00356		nucleic acid binding; zinc ion
1776	2	3.19E-05	0	0	INF		ENSG00000108479:	GALK1			gi|4503895|ref|NP_0	galactokinase 1 [Homo sapie	392	42272	6.5	0	o	Q	20	0.005	0	5.95E-05	0	0	0	1	1.49E-05	2.98E-05	0	0	0	0	0.000196	1	4.9E-05	9.79E-05	0	0	0	0	0	0	0	0	GHMP kinases C terminal.	cytoplasm [pmid 8908517];	ATP binding [pmid
1777	2	3.15E-05	0	0	INF		ENSG00000038274:	MAT2B			gi|11034825|ref|NP_	methionine adenosyltransfera	334	37552	7.4	0	o	Q	20	0	0	0	0	0.000106	0	1	2.64E-05	5.29E-05	0	0	0	0.000147	0	1	3.66E-05	7.33E-05	0	0	0	0	0	0	0	0	RmlD substrate binding	intracellular [pmid 10644686];	dTDP-4-dehydrorhamnose
1778	2	3.13E-05	1	2.51E-06	12.46183		ENSG00000126216:	TUBGCP3			gi|5453660|ref|NP_0	tubulin, gamma complex ass	907	103571	8.1	0	o	Q	27	0.055	0	0	0	3.9E-05	0	1	9.74E-06	1.95E-05	0	0	0	0	0.000212	1	5.29E-05	0.000106	0	0	0	2.01E-05	0	0	0	0	Spc97 / Spc98 family. The	centriole [pmid 9566969];	gamma-tubulin binding [pmid
1779	2	3.13E-05	0	0	INF		ENSG00000167900:	TK1			gi|155969680|ref|NP	thymidine kinase 1, soluble [	276	29891	8.9	0	o	Q	54	0.005	0	0.000169	0	0	0	1	4.23E-05	8.45E-05	0	8.13E-05	0	0	0	1	2.03E-05	4.06E-05	0	0	0	0	0	0	0	0		cytoplasm	ATP binding; kinase activity;
1780	2	3.11E-05	0	0	INF		ENSG00000104081:	BMF			gi|51558688|ref|NP_	Bcl2 modifying factor isoform	184	20508	5	0	o	Q	0	0	0	0.000127	0	0	0	1	3.17E-05	6.34E-05	0	0.000122	0	0	0	1	3.05E-05	6.1E-05	0	0	0	0	0	0	0	0		myosin [pmid 11546872]	protein binding [pmid
1781	2	3.09E-05	0	0	INF		ENSG00000022267:	FHL1			gi|21361122|ref|NP_	four and a half LIM domains	280	31895	8.3	0	o	Q	0	0	0	0	0	0.000189	0	1	4.73E-05	9.46E-05	0	0	0	5.83E-05	0	1	1.46E-05	2.91E-05	0	0	0	0	0	0	0	0	Zinc-binding domain	nucleus	metal ion binding; zinc ion
1782	2	3.08E-05	0	0	INF		ENSG00000101346:	POFUT1			gi|27436889|ref|NP_	protein O-fucosyltransferase	388	43956	8.5	0	o	S	27	1	0	0.00012	0	0	0	1	3.01E-05	6.01E-05	0	0	0	0.000126	0	1	3.15E-05	6.31E-05	0	0	0	0	0	0	0	0		cytoplasm; endoplasmic	manganese ion binding;
1783	2	3.07E-05	0	0	INF		ENSG00000107672:	NSMCE4A			gi|8923009|ref|NP_0	non-SMC element 4 homolog	385	44286	5.3	0	o	Q	0	0	0	0	0	4.59E-05	0	1	1.15E-05	2.29E-05	0	0	0	0	0.000199	1	4.99E-05	9.97E-05	0	0	0	0	0	0	0	0	Nse4. Nse4 is a component		
1784	2	3.05E-05	0	0	INF		ENSG00000115234:	SNX17			gi|7661890|ref|NP_0	sorting nexin 17 [Homo sapie	470	52901	7.5	0	o	Q	30	0	0	0.000149	0	0	0	1	3.72E-05	7.44E-05	0	9.55E-05	0	0	0	1	2.39E-05	4.77E-05	0	0	0	0	0	0	0	0	Band 4.1 homologues; Also	early endosome [pmid	phosphoinositide binding;
1785	2	3.02E-05	0	0	INF		NA:ENSMUSG00000	LOC152663			gi|169166935|ref|XP	PREDICTED: similar to ribos	282	31661	10.2	0	o	Q	41	0	0	8.27E-05	0	0	0	1	2.07E-05	4.14E-05	0	0.000159	0	0	0	1	3.98E-05	7.96E-05	0	0	0	0	0	0	0	0			
1786	2	3.01E-05	1	5.85E-06	5.143564		ENSG00000090621:	PABPC4			gi|4504715|ref|NP_0	poly A binding protein, cytopl	644	70783	9.3	0	o	Q	21	0.047	0	0	0	0.000165	0	1	4.11E-05	8.23E-05	0	0	0	7.6E-05	0	1	1.9E-05	3.8E-05	0	0	0	0	0	0	0	4.68E-05	Poly-adenylate binding	cytoplasm [pmid 8524242]	nucleic acid binding;
1787	2	3E-05	0	0	INF		ENSG00000145388:	KIAA1627			gi|24308265|ref|NP_	hypothetical protein LOC577	456	52150	6.2	0	o	Q	31	0.002	0	0	0	0	0	0	0	0	0	0	0	7.16E-05	0.000168	2	6E-05	7.97E-05	0	0	0	0	0	0	0	0	MT-A70. MT-A70 is the S-	nucleus	methyltransferase activity
1788	2	2.98E-05	0	0	INF		ENSG00000204560:	DHX16			gi|4503293|ref|NP_0	DEAH (Asp-Glu-Ala-His) box	1041	119172	6.7	0	o	Q	40	0.004	0	0	0	1.7E-05	0	1	4.24E-06	8.48E-06	0	0	0	0	0.000221	1	5.53E-05	0.000111	0	0	0	0	0	0	0	0	DEXH-box helicases. A	nucleus [pmid 9547260]	ATP binding; ATP-dependent
1789	2	2.96E-05	0	0	INF		ENSG00000174840:	PDE12			gi|68051728|ref|NP_	phosphodiesterase 12 [Homo	609	67405	6.6	0	o	Q	17	0.06	0	0	0	0.000174	0	1	4.35E-05	8.7E-05	0	0	0	0	6.3E-05	1	1.58E-05	3.15E-05	0	0	0	0	0	0	0	0	mRNA deadenylase,		
1790	2	2.95E-05	0	0	INF		ENSG00000074201:	CLNS1A			gi|4502891|ref|NP_0	chloride channel, nucleotide-	237	26215	4.1	0	o	Q	16	0	0	9.84E-05	0	0	0	1	2.46E-05	4.92E-05	0	0	0	0.000138	0	1	3.44E-05	6.89E-05	0	0	0	0	0	0	0	0	Nucleotide-sensitive	nucleus; plasma membrane	auxiliary transport protein
1791	2	2.95E-05	0	0	INF		ENSG00000132676:	DAP3			gi|16905526|ref|NP_	death-associated protein 3 [H	398	45566	8.9	0	o	Q	34	0.001	0	5.86E-05	0	0.000178	0	2	5.9E-05	8.37E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		mitochondrial ribosome;	
1792	2	2.95E-05	0	0	INF		ENSG00000115761:	NOL10			gi|13430872|ref|NP_	nucleolar protein 10 [Homo s	638	74503	8.5	0	o	Q	22	0	0	0	0	5.54E-05	0	1	1.38E-05	2.77E-05	0	0	0	0	0.000181	1	4.51E-05	9.03E-05	0	0	0	0	0	0	0	0	NUC153 domain. This small	nucleus	
1793	2	2.94E-05	0	0	INF		ENSG00000176014:	TUBB6			gi|14210536|ref|NP_	tubulin, beta 6 [Homo sapien	446	49857	4.9	0	o	Q	16	0	0	0.000195	0	3.96E-05	0	2	5.87E-05	9.29E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	The tubulin superfamily	cytoplasm; microtubule;	GTP binding; GTPase
1794	2	2.93E-05	0	0	INF		ENSG00000123545:	C6orf66			gi|7661786|ref|NP_0	hormone-regulated proliferati	175	20266	8.8	0	o	Q	19	0	0	0.000133	0	0.000101	0	2	5.86E-05	6.89E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Uncharacterised protein		
1795	2	2.92E-05	0	0	INF		ENSG00000142186:	SCYL1			gi|115430241|ref|NP	SCY1-like 1 isoform A [Homo	808	89631	6.3	0	o	Q	27	0	0	0	0	0	0	0	0	0	0	0.000139	0	0	9.5E-05	2	5.85E-05	6.98E-05	0	0	0	0	0	0	0	0			
1796	2	2.88E-05	0	0	INF		ENSG00000114491:	UMPS			gi|4507835|ref|NP_0	uridine monophosphate synth	480	52222	7.2	0	o	S	21	0.845	0	0	0	0.000184	0	1	4.6E-05	9.2E-05	0	4.67E-05	0	0	0	1	1.17E-05	2.34E-05	0	0	0	0	0	0	0	0	Orotidine 5'-phosphate		lyase activity; orotate
1797	2	2.88E-05	0	0	INF		ENSG00000100380:	FAM10A7			gi|19923193|ref|NP_	heat shock 70kD protein bind	369	41332	5.3	0	o	Q	19	0	0	0	0	4.79E-05	0	1	1.2E-05	2.39E-05	0	0.000182	0	0	0	1	4.56E-05	9.12E-05	0	0	0	0	0	0	0	0	Tetratricopeptide repeat	cytoplasm [pmid 8721986]	binding; protein binding,
1798	2	2.87E-05	0	0	INF		ENSG00000166181:	API5			gi|5729730|ref|NP_0	apoptosis inhibitor 5 [Homo s	504	56770	5.9	0	o	Q	0	0	0	0	0	0.00014	0	1	3.5E-05	7.01E-05	0	8.9E-05	0	0	0	1	2.23E-05	4.45E-05	0	0	0	0	0	0	0	0	Apoptosis inhibitory protein	cytoplasm [pmid 11075807];	binding; fibroblast growth
1799	2	2.86E-05	0	0	INF		ENSG00000198183:	PLUNC			gi|18765705|ref|NP_	palate, lung and nasal epithe	256	26713	5.7	0	o	S	20	0.99	0	9.11E-05	0	0.000138	0	2	5.73E-05	6.89E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	LBP / BPI / CETP family, N-	extracellular region [pmid	lipid binding
1800	2	2.84E-05	0	0	INF		ENSG00000101199:	ARFGAP1			gi|28416436|ref|NP_	ADP-ribosylation factor GTPa	414	45676	5.8	0	o	Q	48	0	0	5.63E-05	0	0.000171	0	2	5.68E-05	8.05E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Putative GTPase activating		GTPase activator activity;
1801	2	2.83E-05	0	0	INF		ENSG00000100796:	SMEK1			gi|31657117|ref|NP_	SMEK homolog 1, suppresso	820	93896	4.9	0	o	Q	0	0	0	0	0	8.62E-05	0	1	2.15E-05	4.31E-05	0	0	0	0	0.00014	1	3.51E-05	7.02E-05	0	0	0	0	0	0	0	0	Protein of unknown function		binding
1802	2	2.82E-05	0	0	INF		ENSG00000023909:	GCLM			gi|4504011|ref|NP_0	glutamate-cysteine ligase reg	274	30727	6	0	o	Q	26	0.008	0	8.51E-05	0	0	0	1	2.13E-05	4.26E-05	0	0	0	0	0.00014	1	3.5E-05	7.01E-05	0	0	0	0	0	0	0	0	Aldo/keto reductase family.		glutamate-cysteine ligase
1803	2	2.8E-05	0	0	INF		ENSG00000075142:	SRI			gi|38679884|ref|NP_	sorcin isoform b [Homo sapie	183	20345	5.3	0	o	Q	37	0.001	0	0.000127	0	9.65E-05	0	2	5.6E-05	6.59E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	EF-hand, calcium binding	cytoplasm [pmid 16130169]	calcium channel regulator
1804	2	2.8E-05	0	0	INF		ENSG00000120885:	CLU			gi|42716297|ref|NP_	clusterin isoform 1 [Homo sa	501	57833	6.7	0	o	Q	37	0	0	0	0	7.05E-05	0	1	1.76E-05	3.53E-05	0	0	0	0	0.000153	1	3.83E-05	7.66E-05	0	0	0	0	0	0	0	0	CLUSTERIN alpha chain;	extracellular space [pmid	
1805	2	2.75E-05	0	0	INF		ENSG00000183735:	TBK1			gi|7019547|ref|NP_0	TANK-binding kinase 1 [Hom	729	83642	6.8	0	o	Q	22	0.448	0	0.000128	0	0	0	1	3.2E-05	6.4E-05	0	9.23E-05	0	0	0	1	2.31E-05	4.62E-05	0	0	0	0	0	0	0	0	Serine/Threonine protein		ATP binding; nucleotide
1806	2	2.74E-05	0	0	INF		ENSG00000170854:	MINA			gi|110227621|ref|NP	MYC induced nuclear antiger	465	52800	6.7	0	o	Q	42	0	0	0	0	0.000114	0	1	2.85E-05	5.7E-05	0	0	0	0.000105	0	1	2.63E-05	5.26E-05	0	0	0	0	0	0	0	0			
1807	2	2.71E-05	0	0	INF		ENSG00000170748:	RBMXL2			gi|153252068|ref|NP	testes-specific heterogenous	392	42814	10.3	0	o	Q	27	0	0	0	0	4.51E-05	0	1	1.13E-05	2.25E-05	0	0.000172	0	0	0	1	4.29E-05	8.58E-05	0	0	0	0	0	0	0	0			
1808	2	2.71E-05	0	0	INF		ENSG00000169126:	ARMC4			gi|31657114|ref|NP_	armadillo repeat containing 4	1044	115679	7.8	0	o	Q	22	0.009	0	0	0.00018	0	0	1	4.5E-05	9E-05	0	0	0	0	3.68E-05	1	9.19E-06	1.84E-05	0	0	0	0	0	0	0	0	Armadillo/beta-catenin-like		binding
1809	2	2.7E-05	0	0	INF		ENSG00000166166:	C14orf172			gi|123173772|ref|NP	tRNA(m1A58)-methyltransfer	289	31382	7.4	0	o	Q	34	0	0	0	0	6.11E-05	0	1	1.53E-05	3.06E-05	0	0.000155	0	0	0	1	3.88E-05	7.76E-05	0	0	0	0	0	0	0	0			
1810	2	2.69E-05	0	0	INF		ENSG00000148341:	SH3GLB2			gi|9910352|ref|NP_0	SH3-domain GRB2-like endo	395	43974	6	0	o	Q	20	0.002	0	0.000118	0	0	0	1	2.95E-05	5.9E-05	0	0	0	0	9.72E-05	1	2.43E-05	4.86E-05	0	0	0	0	0	0	0	0	BAR domain; smart00721	cytoplasm	protein binding [pmid
1811	2	2.69E-05	0	0	INF		ENSG00000144893:	MED12L			gi|93277088|ref|NP_	mediator of RNA polymerase	2145	240117	7.8	0	o	Q	18	0	0	0	0	8.24E-06	0	1	2.06E-06	4.12E-06	0.000207	0	0	0	0	1	5.17E-05	0.000103	0	0	0	0	0	0	0	0			receptor activity
1812	2	2.69E-05	0	0	INF		ENSG00000167670:	CHAF1A			gi|50513245|ref|NP_	chromatin assembly factor 1,	956	106910	5.9	0	o	Q	18	0.001	0	0	0.000197	1.85E-05	0	2	5.38E-05	9.56E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		chromatin assembly complex	chromatin binding [pmid
1813	2	2.68E-05	0	0	INF		ENSG00000114767:	RRP9			gi|4759276|ref|NP_0	RNA, U3 small nucleolar inte	475	51841	7.9	0	o	Q	25	0.008	0	0	0	0.000112	0	1	2.79E-05	5.58E-05	0	0	0	0.000103	0	1	2.58E-05	5.15E-05	0	0	0	0	0	0	0	0	WD40 domain, found in a	nucleus; small nuclear	RNA binding
1814	2	2.68E-05	0	0	INF		ENSG00000176102:	CSTF3			gi|4557495|ref|NP_0	cleavage stimulation factor s	717	82922	8.1	0	o	Q	0	0	0	0	0	0.000123	0	1	3.08E-05	6.16E-05	0	0	0	9.1E-05	0	1	2.28E-05	4.55E-05	0	0	0	0	0	0	0	0	HAT (Half-A-TPR) repeats;	intracellular; nucleus [pmid	binding; RNA binding [pmid
1815	2	2.63E-05	0	0	INF		ENSG00000057663:	ATG5			gi|4757798|ref|NP_0	APG5 autophagy 5-like [Hom	275	32447	5.8	0	o	Q	33	0	0	0	0	0.000128	0	1	3.21E-05	6.42E-05	0	8.16E-05	0	0	0	1	2.04E-05	4.08E-05	0	0	0	0	0	0	0	0	Autophagy protein Apg5.	autophagic vacuole [pmid	
1816	2	2.62E-05	0	0	INF		ENSG00000138061:	CYP1B1			gi|4503203|ref|NP_0	cytochrome P450, family 1, s	543	60832	9	0	o	S	32	0.554	0	8.59E-05	0	0	0	1	2.15E-05	4.3E-05	0	0.000124	0	0	0	1	3.1E-05	6.2E-05	0	0	0	0	0	0	0	0	Cytochrome P450.	endoplasmic reticulum;	heme binding [pmid
1817	2	2.61E-05	0	0	INF		ENSG00000148290:	SURF1			gi|4507319|ref|NP_0	surfeit 1 [Homo sapiens]	300	33331	9.6	0	o	S	24	0.949	0	0	0	5.89E-05	0	1	1.47E-05	2.94E-05	0	0.00015	0	0	0	1	3.74E-05	7.48E-05	0	0	0	0	0	0	0	0	SURF1 family; pfam02104	integral to membrane;	cytochrome-c oxidase
1818	2	2.57E-05	0	0	INF		ENSG00000110711:	AIP			gi|4502009|ref|NP_0	aryl hydrocarbon receptor int	330	37664	6.5	0	o	Q	0	0	0	0	0	0.000107	0	1	2.68E-05	5.35E-05	0	0	0	9.89E-05	0	1	2.47E-05	4.95E-05	0	0	0	0	0	0	0	0	Tetratricopeptide repeat	cytoplasm [pmid 8972861]	binding; signal transducer
1819	2	2.57E-05	0	0	INF		ENSG00000178896:	EXOSC4			gi|9506689|ref|NP_0	exosome component 4 [Hom	245	26383	6.5	0	o	Q	17	0	0	0	0	7.21E-05	0	1	1.8E-05	3.6E-05	0	0	0	0.000133	0	1	3.33E-05	6.66E-05	0	0	0	0	0	0	0	0	3' exoribonuclease family,	cytoplasm [pmid 11110791];	3'-5'-exoribonuclease activity
1820	2	2.54E-05	0	0	INF		ENSG00000114021:	NIT2			gi|9910460|ref|NP_0	nitrilase family, member 2 [H	276	30608	7.2	0	o	Q	19	0.444	0	0	0	6.4E-05	0	1	1.6E-05	3.2E-05	0	0	0	0	0.000139	1	3.48E-05	6.95E-05	0	0	0	0	0	0	0	0	Predicted amidohydrolase		hydrolase activity, acting on
1821	2	2.5E-05	0	0	INF		ENSG00000167363:	FN3K			gi|11545906|ref|NP_	fructosamine 3 kinase [Homo	309	35171	7.6	0	o	Q	31	0.032	0	7.55E-05	0	0	0	1	1.89E-05	3.77E-05	0	0	0	0	0.000124	1	3.11E-05	6.21E-05	0	0	0	0	0	0	0	0	Uncharacterized protein		fructosamine-3-kinase
1822	2	2.49E-05	0	0	INF		ENSG00000163938:	GNL3			gi|45593130|ref|NP_	guanine nucleotide binding p	549	61993	9.2	0	o	Q	0	0	0	0	0	0	0	0	0	0	0	0	0	5.95E-05	0.00014	2	4.98E-05	6.62E-05	0	0	0	0	0	0	0	0	GNL3L/Grn1 putative	intracellular; nucleolus;	GTP binding; nucleotide
1823	2	2.48E-05	0	0	INF		ENSG00000070770:	CSNK2A2			gi|4503097|ref|NP_0	casein kinase 2, alpha prime	350	41213	8.6	0	o	Q	15	0	0	0	0	0.000151	0	1	3.79E-05	7.57E-05	0	0	0	4.66E-05	0	1	1.17E-05	2.33E-05	0	0	0	0	0	0	0	0	Serine/Threonine protein		ATP binding; nucleotide
1824	2	2.47E-05	0	0	INF		ENSG00000161618:	ALDH16A1			gi|23503239|ref|NP_	aldehyde dehydrogenase 16	802	85113	6.8	0	o	Q	42	0.014	0	8.72E-05	0	0.00011	0	2	4.93E-05	5.77E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Aldehyde dehydrogenase		oxidoreductase activity
1825	2	2.46E-05	0	0	INF		ENSG00000177646:	ACAD9			gi|21361497|ref|NP_	acyl-Coenzyme A dehydroge	621	68760	8	0	o	S	20	0.807	0	0	0	0.000171	0	1	4.27E-05	8.53E-05	0	0	0	2.63E-05	0	1	6.57E-06	1.31E-05	0	0	0	0	0	0	0	0	Very long chain acyl-CoA	mitochondrion	acyl-CoA dehydrogenase
1826	2	2.46E-05	0	0	INF		ENSG00000003402:	CFLAR			gi|21361769|ref|NP_	CASP8 and FADD-like apopt	480	55343	8.1	0	o	Q	0	0	0	0	0	3.68E-05	0	1	9.2E-06	1.84E-05	0	0	0	0	0.00016	1	4E-05	8E-05	0	0	0	0	0	0	0	0	Death effector domain.		caspase activity; protein
1827	2	2.43E-05	0	0	INF		ENSG00000151414:	NEK7			gi|19424132|ref|NP_	NIMA (never in mitosis gene	302	34551	8.3	0	o	Q	0	0	0	7.72E-05	0	0.000117	0	2	4.86E-05	5.84E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Serine/Threonine protein		ATP binding; magnesium ion
1828	2	2.42E-05	0	0	INF		ENSG00000067066:	SP100			gi|122939208|ref|NP	nuclear antigen Sp100 isofor	885	101575	7.4	0	o	Q	32	0	0	0	0	0.00012	0	1	2.99E-05	5.99E-05	0	0	0	7.38E-05	0	1	1.84E-05	3.69E-05	0	0	0	0	0	0	0	0			
1829	2	2.41E-05	0	0	INF		ENSG00000104129:	DNAJC17			gi|8922563|ref|NP_0	DnaJ (Hsp40) homolog, subf	304	34687	8.5	0	o	Q	24	0.002	0	7.67E-05	0	0.000116	0	2	4.82E-05	5.8E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	DnaJ domain. DnaJ		heat shock protein binding;
1830	2	2.39E-05	0	0	INF		ENSG00000160959:	LRRC14			gi|7661860|ref|NP_0	leucine rich repeat containing	493	54513	6.9	0	o	S	23	0.867	0	0	0	3.58E-05	0	1	8.96E-06	1.79E-05	0	0	0	0	0.000156	1	3.89E-05	7.79E-05	0	0	0	0	0	0	0	0	Leucine-rich repeats		transferase activity
1831	2	2.39E-05	0	0	INF		ENSG00000053372:	MRTO4			gi|18490987|ref|NP_	ribosomal protein P0-like pro	239	27560	8.3	0	o	Q	0	0	0	9.76E-05	0	0	0	1	2.44E-05	4.88E-05	0	9.39E-05	0	0	0	1	2.35E-05	4.69E-05	0	0	0	0	0	0	0	0	Ribosomal protein L10	intracellular; nucleus	
1832	2	2.39E-05	0	0	INF		ENSG00000157349:	DDX19B			gi|6005743|ref|NP_0	DEAD (Asp-Glu-Ala-As) box	479	53927	6.3	0	o	Q	18	0.003	0	9.74E-05	0	0	0	1	2.43E-05	4.87E-05	0	9.37E-05	0	0	0	1	2.34E-05	4.68E-05	0	0	0	0	0	0	0	0	Helicase superfamily c-	cytoplasm [pmid 10428971];	ATP binding; ATP-dependent
1833	2	2.38E-05	0	0	INF		ENSG00000124608:	AARS2			gi|38569417|ref|NP_	alanyl-tRNA synthetase like [	985	107326	6.3	0	o	Q	56	0.338	0	0.000118	0	7.17E-05	0	2	4.75E-05	5.81E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Alanyl-tRNA synthetase		alanine-tRNA ligase activity;
1834	2	2.35E-05	0	0	INF		ENSG00000065675:	PRKCQ			gi|5453976|ref|NP_0	protein kinase C, theta [Hom	706	81865	7.6	0	o	Q	18	0.071	0	0	0	2.5E-05	0	1	6.26E-06	1.25E-05	0	0	0	0	0.000163	1	4.08E-05	8.16E-05	0	0	0	0	0	0	0	0	Protein kinase C conserved	intracellular	ATP binding; diacylglycerol
1835	2	2.34E-05	0	0	INF		ENSG00000166200:	COPS2			gi|4759264|ref|NP_0	COP9 constitutive photomorp	443	51597	5.5	0	o	Q	0	0	0	0	0	3.99E-05	0	1	9.97E-06	1.99E-05	0	0	0	0.000147	0	1	3.68E-05	7.37E-05	0	0	0	0	0	0	0	0	26S proteasome regulatory	cytoplasm [pmid 9535219];	protein binding [pmid
1836	2	2.34E-05	0	0	INF		ENSG00000168884:	TNIP2			gi|34147370|ref|NP_	A20-binding inhibitor of NF-k	429	48728	6.4	0	o	Q	30	0.019	0	0	0	8.24E-05	0	1	2.06E-05	4.12E-05	0	0.000105	0	0	0	1	2.61E-05	5.23E-05	0	0	0	0	0	0	0	0	Chromosome segregation		
1837	2	2.33E-05	0	0	INF		ENSG00000142046:	BCKDHA			gi|11386135|ref|NP_	branched chain keto acid deh	445	50471	8.3	0	o	S	33	0.987	0	0	0	3.97E-05	0	1	9.92E-06	1.98E-05	0	0	0	0.000147	0	1	3.67E-05	7.33E-05	0	0	0	0	0	0	0	0	Thiamine pyrophosphate	alpha-ketoglutarate	3-methyl-2-oxobutanoate
1838	2	2.31E-05	0	0	INF		ENSG00000111716:	LDHB			gi|4557032|ref|NP_0	lactate dehydrogenase B [Ho	334	36639	6.1	0	o	Q	47	0	0	6.98E-05	0	0	0	1	1.75E-05	3.49E-05	0	0	0	0	0.000115	1	2.87E-05	5.75E-05	0	0	0	0	0	0	0	0	L-lactate dehydrogenases	cytoplasm [pmid 16130169]	L-lactate dehydrogenase
1839	2	2.3E-05	0	0	INF		ENSG00000136271:	DDX56			gi|9506931|ref|NP_0	DEAD (Asp-Glu-Ala-Asp) box	547	61590	9.3	0	o	Q	22	0	0	0	0	6.46E-05	0	1	1.61E-05	3.23E-05	0	0	0	0.000119	0	1	2.98E-05	5.97E-05	0	0	0	0	0	0	0	0	Helicase superfamily c-	nucleolus [pmid 10749921];	ATP binding; ATP-dependent
1840	2	2.29E-05	0	0	INF		ENSG00000197498:	BXDC1			gi|39930469|ref|NP_	brix domain containing 1 [Ho	306	35583	10	0	o	Q	0	0	0	7.62E-05	0	0	0	1	1.91E-05	3.81E-05	0	0	0	0.000107	0	1	2.67E-05	5.33E-05	0	0	0	0	0	0	0	0	Uncharacterized conserved	nucleus	
1841	2	2.28E-05	0	0	INF		ENSG00000165806:	CASP7			gi|15718698|ref|NP_	caspase 7 isoform delta [Hor	336	37815	6.4	0	o	Q	34	0.001	0	0	0	0	0	0	0	0	0	0.000134	0	4.86E-05	0	2	4.55E-05	6.3E-05	0	0	0	0	0	0	0	0	Caspase, interleukin-1 beta	cytoplasm [pmid 8576161];	caspase activity; cysteine-
1842	2	2.26E-05	0	0	INF		ENSG00000116954:	RRAGC			gi|11995472|ref|NP_	Ras-related GTP binding C [	399	44224	5.1	0	o	Q	22	0	0	5.85E-05	0	0	0	1	1.46E-05	2.92E-05	0	0	0	0.000123	0	1	3.07E-05	6.14E-05	0	0	0	0	0	0	0	0	Gtr1/RagA G protein	cytoplasm [pmid 11073942];	GDP binding [pmid
1843	2	2.26E-05	0	0	INF		ENSG00000198130:	HIBCH			gi|37594469|ref|NP_	3-hydroxyisobutyryl-Coenzym	338	38012	8.5	0	o	Q	35	0.001	0	0	0	0	0	0	0	0	0	0.000133	0	4.83E-05	0	2	4.53E-05	6.26E-05	0	0	0	0	0	0	0	0	enoyl-CoA hydratase;		3-hydroxyisobutyryl-CoA
1844	2	2.26E-05	0	0	INF		ENSG00000142409:	ZNF787			gi|152963637|ref|NP	zinc finger protein 787 [Hom	382	40428	8	0	o	Q	0	0	0	0.000122	0	0	0	1	3.05E-05	6.11E-05	0	5.87E-05	0	0	0	1	1.47E-05	2.94E-05	0	0	0	0	0	0	0	0			
1845	2	2.26E-05	0	0	INF		ENSG00000114030:	KPNA1			gi|88758611|ref|NP_	karyopherin alpha 1 [Homo s	538	60249	5	0	o	Q	0	0	0	0	0	0.000109	0	1	2.74E-05	5.47E-05	0	0	0	0	7.14E-05	1	1.78E-05	3.57E-05	0	0	0	0	0	0	0	0	Importin beta binding	cytoplasm [pmid 7754385];	nuclear localization
1846	2	2.25E-05	0	0	INF		ENSG00000148334:	PTGES2			gi|13376617|ref|NP_	prostaglandin E synthase 2 is	377	41943	9.2	0	o	S	51	0.757	0	0	0	9.37E-05	0	1	2.34E-05	4.69E-05	0	0	0	8.66E-05	0	1	2.16E-05	4.33E-05	0	0	0	0	0	0	0	0	GST_N family; microsomal	integral to membrane;	electron carrier activity;
1847	2	2.23E-05	0	0	INF		ENSG00000166902:	MRPL16			gi|8923448|ref|NP_0	mitochondrial ribosomal prote	251	28449	10.1	0	o	S	29	0.949	0	0	0	0	0.001622	1	0	0	0	0.000179	0	0	0	1	4.47E-05	8.94E-05	0	0	0	0	0	0	0	0	50S ribosomal protein L16;	intracellular; mitochondrion;	structural constituent of
1848	2	2.22E-05	0	0	INF		ENSG00000071894:	CPSF1			gi|56676371|ref|NP_	cleavage and polyadenylatio	1443	160883	6.4	0	o	Q	34	0	0	0	0	9.79E-05	0	1	2.45E-05	4.9E-05	0	0	0	0	7.98E-05	1	2E-05	3.99E-05	0	0	0	0	0	0	0	0	CPSF A subunit region.	mRNA cleavage and	mRNA 3'-UTR binding [pmid
1849	2	2.21E-05	0	0	INF		ENSG00000109113:	RAB34			gi|31543537|ref|NP_	RAB39 [Homo sapiens]	259	29058	7.9	0	o	Q	25	0	0	9.01E-05	0	0	0	1	2.25E-05	4.5E-05	0	8.66E-05	0	0	0	1	2.17E-05	4.33E-05	0	0	0	0	0	0	0	0	Rab34/Rab36 subfamily.	membrane	GTP binding; nucleotide
1850	2	2.2E-05	0	0	INF		ENSG00000091542:	ALKBH5			gi|148539642|ref|NP	alkB, alkylation repair homolo	394	44256	9.1	0	o	S	49	0.953	0	0	0	0.000134	0	1	3.36E-05	6.72E-05	0	0	0	4.14E-05	0	1	1.04E-05	2.07E-05	0	0	0	0	0	0	0	0			
1851	2	2.19E-05	0	0	INF		ENSG00000163840:	DTX3L			gi|19923717|ref|NP_	deltex 3-like [Homo sapiens]	740	83554	8.1	0	o	Q	21	0	0	0	0	7.16E-05	0	1	1.79E-05	3.58E-05	0	0	0	0	0.000104	1	2.59E-05	5.19E-05	0	0	0	0	0	0	0	0	RING-finger (Really		metal ion binding; protein
1852	2	2.17E-05	0	0	INF		ENSG00000128050:	PAICS			gi|119220557|ref|NP	phosphoribosylaminoimidazo	425	47079	7.2	0	o	Q	0	0	0	0	0	8.31E-05	0	1	2.08E-05	4.16E-05	0	0	0	0	9.03E-05	1	2.26E-05	4.52E-05	0	0	0	0	0	0	0	0			
1853	2	2.16E-05	0	0	INF		ENSG00000148824:	MTG1			gi|93277113|ref|NP_	GTP_binding protein [Homo	334	37237	9.5	0	o	Q	15	0.138	0	0	0	0.000106	0	1	2.64E-05	5.29E-05	0	6.72E-05	0	0	0	1	1.68E-05	3.36E-05	0	0	0	0	0	0	0	0	YlqF. Proteins of the YlqF	intracellular	GTP binding
1854	2	2.15E-05	0	0	INF		ENSG00000145882:	PCYOX1L			gi|31543181|ref|NP_	prenylcysteine oxidase 1 like	494	54673	7.3	0	o	S	23	1	0	9.44E-05	0	0	0	1	2.36E-05	4.72E-05	0	0	0	0	7.77E-05	1	1.94E-05	3.89E-05	0	0	0	0	0	0	0	0	Prenylcysteine lyase. This		oxidoreductase activity
1855	2	2.13E-05	0	0	INF		ENSG00000197070:	ARRDC1			gi|22748653|ref|NP_	arrestin domain containing 1	433	45981	7	0	o	Q	15	0.013	0	0	0	8.16E-05	0	1	2.04E-05	4.08E-05	0	0	0	0	8.87E-05	1	2.22E-05	4.43E-05	0	0	0	0	0	0	0	0	Arrestin (or S-antigen), N-		
1856	2	2.12E-05	0	0	INF		ENSG00000100296:	THOC5			gi|50959115|ref|NP_	THO complex 5 [Homo sapie	683	78508	6.9	0	o	Q	0	0	0	0	0	2.59E-05	0	1	6.47E-06	1.29E-05	0	0	0	0.000143	0	1	3.58E-05	7.17E-05	0	0	0	0	0	0	0	0	RecF/RecN/SMC N		
1857	2	2.11E-05	0	0	INF		ENSG00000173145:	NOC3L			gi|20806097|ref|NP_	nucleolar complex associated	800	92548	9.2	0	o	Q	0	0	0	5.83E-05	0	0.00011	0	2	4.22E-05	5.31E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Nucleolar complex-	nucleus	
1858	2	2.1E-05	0	0	INF		ENSG00000138433:	CIR			gi|40068059|ref|NP_	CBF1 interacting corepresso	450	52313	9.9	0	o	Q	0	0	0	0	0	0.000118	0	1	2.94E-05	5.89E-05	0	4.99E-05	0	0	0	1	1.25E-05	2.49E-05	0	0	0	0	0	0	0	0		histone deacetylase complex	protein binding [pmid
1859	2	2.09E-05	0	0	INF		ENSG00000161011:	SQSTM1			gi|4505571|ref|NP_0	sequestosome 1 [Homo sapi	440	47687	5.2	0	o	Q	17	0.003	0	0	0	8.03E-05	0	1	2.01E-05	4.01E-05	0	0	0	0	8.72E-05	1	2.18E-05	4.36E-05	0	0	0	0	0	0	0	0	Zinc finger, ZZ type. Zinc	cytosol [pmid 8650207] [pmid	metal ion binding; protein
1860	2	2.09E-05	0	0	INF		ENSG00000138663:	COPS4			gi|38373690|ref|NP_	COP9 signalosome subunit 4	406	46269	5.8	0	o	Q	24	0	0	0	0	8.7E-05	0	1	2.18E-05	4.35E-05	0	0	0	8.04E-05	0	1	2.01E-05	4.02E-05	0	0	0	0	0	0	0	0	26S proteasome regulatory	nucleus; signalosome complex	protein binding [pmid
1861	2	2.09E-05	0	0	INF		ENSG00000116062:	MSH6			gi|4504191|ref|NP_0	mutS homolog 6 [Homo sapi	1360	152785	6.9	0	o	Q	21	0.029	0	0	0	2.6E-05	0	1	6.49E-06	1.3E-05	0	0	0	0	0.000141	1	3.53E-05	7.06E-05	0	0	0	0	0	0	0	0	MutS6 homolog in	nucleus [pmid 8942985]	ATP binding; damaged DNA
1862	2	2.09E-05	0	0	INF		ENSG00000006047:	YBX2			gi|156415990|ref|NP	Y box binding protein 2 [Hom	364	38518	10.8	0	o	S	28	0.886	0	0	0	0	0	0	0	0	0	6.16E-05	0	0	0.000105	2	4.18E-05	5.14E-05	0	0	0	0	0	0	0	0			

rk	NEs detected # out of 10 runs	NEs dNSAF_AVG	MMs detected # out of 8 runs	MMs dNSAF_AVG	NEs:MMs	Detected in Mitochondria	ORTHO_GROUP	GENE_NAME	NET_NAME	Location & Gene Expression Data	Locus	Description	Length	MW	pI	PredHel	TMHMM_Topology	SIGNALP_HMM_TYPE (S= signal; A= Anchor; Q= none)	SIGNALP_HMM_POS	SIGNALP_HMM_PROB	RESTING LYMPHOCYTES NEs: HsNaOH-NE_NT_lymphocytes_ChIBTi_1_dNSAF	HsNaOH-NE_NT_lymphocytes_Ti_1_dNSAF	HsNaOH-NE_NT_lymphocytes_PK_1_dNSAF	HsSD-NE_NT_lymphocytes_Ti_1_dNSAF	HsSD-NE_NT_lymphocytes_PK_1_dNSAF	NT-bNEs Detected # Out of 5	NT-nNEs AVG	NT-bNEs dNSAF SDV	PHA-TREATED LYMPHOCYTES NEs: HsNaOH-NE_PHA_lymphocytes_ChIBTi_1_dNSAF	HsNaOH-NE_PHA_lymphocytes_Ti_1_dNSAF	HsNaOH-NE_PHA_lymphocytes_PK_1_dNSAF	HsSD-NE_PHA_lymphocytes_Ti_1_dNSAF	HsSD-NE_PHA_lymphocytes_PK_1_dNSAF	PHA-bNEs Detected # Out of 5	PHA-nNEs AVG	PHA-bNEs dNSAF SDV	MMs: MmNaOH-MM_liver_ChIBTi_1_dNSAF	MmNaOH-MM_liver_ChIBTi_2_dNSAF	RnNaOH-MM_liver_Ti_1_dNSAF	RnNaOH-MM_liver_Ti_2_dNSAF	RnNaOH-MM_liver_Ti_3_dNSAF	RnNaOH-MM_liver_Ti_4_dNSAF	RnNaOH-MM_liver_PK_1_dNSAF	RnNaOH-MM_liver_PK_2_dNSAF	Region_Note	GO_Component	GO_Function
1863	2	2.07E-05	0	0	NF		ENSG00000076865	NTSC2			g	6591258	ref	NP_0	5'-nucleotidase, cytosolic II [	561	64970	8.1	0	o	G	0	0	0	0	0	0	0	0	0	0	0	0	0	2	4.15E-05	6.5E-05	0	0	0	0	0	0	0	0	5' nucleotidase family. This	cytosol	5'-nucleotidase activity [pmid
1864	2	2.07E-05	0	0	NF		ENSG00000005194	CIAPIN1			g	8927416	ref	NP_	cytokine induced apoptosis i	312	33582	5.6	0	o	S	25	0.038	0	0	0.000113	0	0	1	2.83E-05	5.66E-05	0	0	5.23E-05	0	0	1	1.31E-05	2.62E-05	0	0	0	0	0	0	0	0	Anamorsin family. This	cytoplasm [pmid 14970183]	
1865	2	2.05E-05	1	1.84E-06	11.11323		ENSG00000132535	ORC3L			g	32463367	ref	NP_	origin recognition complex	1	0	6.5E-05	0	0	G	0	0	0	0	9.94E-05	0	0	2	4.12E-05	4.96E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Origin recognition complex	chromatin; nucleus	DNA binding; DNA replicatio
1866	2	2.05E-05	1	1.84E-06	11.11323		ENSG00000170004	CHD3			g	52630320	ref	NP_	chromodomain helicase DNA	1966	222859	7.5	0	o	G	14	0.005	0	0	2.7E-05	0	0	1	6.74E-06	1.35E-05	0	0	0	0	0	1	3.42E-05	6.83E-05	0	0	0	0	0	1.47E-05	0	0	Helicase superfamily c-		ATP binding; ATP-dependent
1867	2	2.04E-05	0	0	NF		ENSG00000069998	CECR5			g	14861834	ref	NP_	cat eye syndrome chromoso	423	46321	8.1	0	o	S	16	0.994	0	0.00011	0	0	0	1	2.76E-05	5.51E-05	0	0.3E-05	0	0	0	1	1.33E-05	2.65E-05	0	0	0	0	0	0	0	0	Predicted sugar		hydrolase activity
1868	2	2.03E-05	0	0	NF		ENSG00000102974	CTCF			g	5729790	ref	NP_	CCCTC-binding factor (Homo	727	82785	7	0	o	G	0	0	0	0	7.29E-05	0	0	1	1.82E-05	3.64E-05	0	0	8.98E-05	0	0	1	2.24E-05	4.49E-05	0	0	0	0	0	0	0	0	Bacterial Peptidase A24 N-	intracellular; nucleus [pmid	metal ion binding; nucleic
1869	2	2.03E-05	0	0	NF		ENSG00000077168	FAFAH1B1			g	4557741	ref	NP_0	platelet-activating factor acet	410	46638	7.4	0	o	G	0	0	0	0	4.31E-05	0	0	1	1.08E-05	2.15E-05	0	0	0.000119	0	0	1	2.99E-05	5.97E-05	0	0	0	0	0	0	0	0	WD40 domain, found in a	astral microtubule [pmid	dynein binding [pmid
1870	2	2.03E-05	0	0	NF		ENSG00000213380	CCG8			g	21166361	ref	NP_	component of oligomeric golg	612	68452	5.2	0	o	S	20	0.941	0	0	0	0	0	1	3.67E-05	7.34E-05	0	0.000125	0	0	0	1	4.05E-05	5.92E-05	0	0	0	0	0	0	0	0	Dor1-like family. Dor1 is	Golgi transport complex [pmid	
1871	2	2.02E-05	0	0	NF		ENSG00000100227	PDLIM7			g	2683765	ref	NP_0	DNA polymerase delta intera	421	46089	10	0	o	S	48	0	0	5.54E-05	0	0	0	1	1.39E-05	2.77E-05	0	0.000107	0	0	0	1	2.66E-05	5.32E-05	0	0	0	0	0	0	0	0	RNA-binding proteins (RRM)	nucleus	nucleotide binding; RNA
1872	2	2.02E-05	0	0	NF		ENSG00000130830	MPP1			g	4505237	ref	NP_0	palmitoylated membrane pro	466	52297	7.4	0	o	G	24	0	0	0	0.000114	0	0	1	2.84E-05	5.69E-05	0	4.81E-05	0	0	0	1	1.2E-05	2.41E-05	0	0	0	0	0	0	0	0	Src homology 3 domains;	integral to plasma membrane	guanylate kinase activity
1873	2	2.01E-05	0	0	NF		ENSG00000145425	RELB			g	2549000	ref	NP_0	reticuloendotheliosis viral on	579	62755	6.2	0	o	G	49	0.144	0	0	0.000122	0	0	1	3.05E-05	6.15E-05	0	3.87E-05	0	0	0	1	9.69E-06	1.94E-05	0	0	0	0	0	0	0	0	Rel homology domain	nucleus	protein binding [pmid
1874	2	2.01E-05	0	0	NF		ENSG00000113812	ACTR8			g	39812115	ref	NP_	actin-related protein 8 [Homo	624	70484	7.8	0	o	G	0	0	3.74E-05	0	0	0	0	1	9.34E-06	1.87E-05	0	0	0	0	0.000123	1	3.08E-05	6.15E-05	0	0	0	0	0	0	0	0	Actin; An ubiquitous protein	cytoskeleton	protein binding; structural
1875	2	2E-05	0	0	NF		ENSG00000160688	FLAD1			g	41872389	ref	NP_	flavin adenine dinucleotide s	587	65286	6.9	0	o	G	55	0.019	0	3.97E-05	0	0.00012	0	2	4E-05	5.67E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	This domain is found in		transferase activity
1876	2	2E-05	0	0	NF		ENSG00000132432	MAD3			g	51745131	ref	NP_	chromodomain helicase DNA	425	48481	7.2	0	o	G	18	0.005	0	0	8.31E-05	0	0	1	2.08E-05	4.16E-05	0	7.68E-05	0	0	0	1	1.92E-05	3.84E-05	0	0	0	0	0	0	0	0	MH2 domain; C terminal	intracellular [pmid 14612439]	protein binding [pmid
1877	2	1.99E-05	0	0	NF		ENSG00000116863	ADPRHL2			g	8923417	ref	NP_0	ADP-ribosylhydrolase like 2 [	363	38947	5.1	0	o	S	38	0.993	0	0	9.73E-05	0	0	1	2.43E-05	4.87E-05	0	6.18E-05	0	0	0	1	1.55E-05	3.09E-05	0	0	0	0	0	0	0	0	ADP-ribosylglycohydrolase;		hydrolase activity
1878	2	1.98E-05	0	0	NF		ENSG00000072518	MARK2			g	8699043	ref	NP_0	MAP/microtubule affinity-reg	724	81209	9.2	0	o	G	17	0	9.66E-05	0	0	0	0	1	2.42E-05	4.83E-05	0	6.2E-05	0	0	0	1	1.55E-05	3.1E-05	0	0	0	0	0	0	0	0	Serine/Threonine protein	membrane [pmid 14976552]	ATP binding [pmid
1879	2	1.98E-05	0	0	NF		ENSG00000191311	YARS2			g	34681057	ref	NP_	mitochondrial tyrosyl-RNA sy	477	53199	9	0	o	G	34	0.982	0	0.000111	0	0	0	1	2.76E-05	5.55E-05	0	4.75E-05	0	0	0	1	1.19E-05	2.35E-05	0	0	0	0	0	0	0	0	Tyrosyl-tRNA synthetase	mitochondrion [pmid	ATP binding; ligase activity;
1880	2	1.97E-05	0	0	NF		ENSG00000161204	ABCF3			g	14861283	ref	NP_	ATP-binding cassette, sub-fa	709	79745	6.3	0	o	G	18	0	3.29E-05	0	0.000125	0	0	2	3.94E-05	5.89E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
1881	2	1.95E-05	0	0	NF		ENSG00000150256	MORC3			g	28872812	ref	NP_	MORC family CW-type zinc f	939	107113	5.6	0	o	G	28	0.129	0	7.45E-05	0	0	0	1	1.86E-05	3.73E-05	0	8.18E-05	0	0	0	1	2.04E-05	4.09E-05	0	0	0	0	0	0	0	0	CW-type Zinc Finger. This	nucleus	ATP binding; metal ion
1882	2	1.95E-05	0	0	NF		ENSG00000154930	ACSS1			g	28416953	ref	NP_	acyl-CoA synthetase short-cl	689	74857	7.1	0	o	S	54	0.81	0	0	2.56E-05	0	0	1	6.41E-06	1.28E-05	0	0.00013	0	0	0	1	3.26E-05	6.51E-05	0	0	0	0	0	0	0	0	acetyl-coenzyme A	mitochondrion	acetate-CoA ligase activity;
1883	2	1.94E-05	0	0	NF		ENSG00000132109	TRIM21			g	15208660	ref	NP_	tripartite motif protein 21 [Ho	475	54170	6.4	0	o	G	17	0.011	0	0	7.44E-05	0	0	1	1.86E-05	3.72E-05	0	0	8.08E-05	0	0	1	2.02E-05	4.04E-05	0	0	0	0	0	0	0	0	RING-finger (Really	intracellular; ribonucleoprotein	DNA binding; metal ion
1884	2	1.94E-05	0	0	NF		ENSG00000008405	PDK5			g	31110047	ref	NP_0	pyruvate dehydrogenase kin	404	46928	8.8	0	o	G	0	0	4.37E-05	0	0	0	0	1	1.09E-05	2.19E-05	0	0.000111	0	0	0	1	2.78E-05	5.55E-05	0	0	0	0	0	0	0	0	Vps5 C terminal like. Vps5	cytosol; proteasome complex	phosphoinositide binding;
1885	2	1.92E-05	0	0	NF		ENSG00000159352	PSMD4			g	5292161	ref	NP_0	proteasome 26S non-ATPase	377	40737	4.8	0	o	G	14	0	9.37E-05	0	0	0	0	1	2.34E-05	4.69E-05	0	5.95E-05	0	0	0	1	1.49E-05	2.98E-05	0	0	0	0	0	0	0	0	26S proteasome plays a		DNA binding; hydrolase
1886	2	1.91E-05	0	0	NF		ENSG00000124523	SIRT5			g	13787215	ref	NP_0	sirtuin 5 isoform 2 [Homo sap	299	32674	8.8	0	o	G	26	0.014	7.8E-05	0	0	0	0	1	1.95E-05	3.9E-05	0	7.5E-05	0	0	0	1	1.88E-05	3.76E-05	0	0	0	0	0	0	0	0	SIRT5_AT1_CobB;	chromatin silencing complex	DNA binding; hydrolase
1887	2	1.91E-05	0	0	NF		ENSG00000167508	MVD			g|4505289|ref|NP_0	diphosphomevalonate decarl	400	43405	7.2	0	o	G	20	0.123	0	0	0	0	0	1	9.34E-06	1.87E-05	0	0	0	0	0.000112	1	4.08E-05	0	2	3.82E-05	5.29E-05	0	0	0	0	0	0	0	0	Mevalonate pyrophosphate		ATP binding [pmid
1888	2	1.88E-05	0	0	NF		ENSG00000081320	STK17B			g	4758194	ref	NP_0	serine/threonine kinase 17b [	372	42344	5.3	0	o	G	21	0.008	0	0	4.75E-05	0	0	1	1.19E-05	2.37E-05	0	0	0	0	0.000103	1	2.58E-05	5.16E-05	0	0	0	0	0	0	0	0	Serine/Threonine protein	nucleus [pmid 9786912]	ATP binding [pmid 9786912];
1889	2	1.87E-05	0	0	NF		ENSG00000133330	SCLY			g	15671344	ref	NP_0	selenocysteine lyase [Homo	445	48149	7.1	0	o	G	18	0.001	0	0	3.97E-05	0	0	1	9.92E-06	1.98E-05	0	0.00011	0	0	0	1	1.75E-05	5.5E-05	0	0	0	0	0	0	0	0			
1890	2	1.86E-05	0	0	NF		ENSG00000141480	ARRB2			g	39812055	ref	NP_0	arrestin, beta 2 isoform 2 [Ho	394	44392	7.9	0	o	G	51	0	5.92E-05	0	8.97E-05	0	0	2	3.72E-05	4.47E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Arrestin (or S-antigen), N-	cytoplasm [pmid 9346876];	
1891	2	1.86E-05	0	0	NF		ENSG00000184939	PNPO			g	8922488	ref	NP_0	pyridoxine 5'-phosphate oxid	261	29986	7.1	0	o	G	32	0.092	0	0	0	0	0	1	8.6E-06	1.72E-05	0	6.25E-05	0	0	0	1	3.71E-05	4.39E-05	0	0	0	0	0	0	0	0	Pyridoxamine-phosphate		FMN binding; oxidoreductase
1892	2	1.85E-05	0	0	NF		ENSG00000161956	ESENP3			g	21361499	ref	NP_0	SUMO/sentrin/SMT3 specif	574	65010	8.6	0	o	G	20	0	8.13E-05	0	0	0	0	1	2.03E-05	4.06E-05	0	0	6.69E-05	0	0	1	1.67E-05	3.34E-05	0	0	0	0	0	0	0	0	Ulp1 protease family, C-	nucleolus [pmid 11256614];	cysteine-type peptidase
1893	2	1.81E-05	0	0	NF		ENSG00000102030	ARD1A			g	10835057	ref	NP_0	N-acetyltransferase ARD1 [H	235	26458	5.6	0	o	G	24	0	0	0	7.52E-05	0	0	1	1.88E-05	3.76E-05	0	0	6.94E-05	0	0	1	1.74E-05	3.47E-05	0	0	0	0	0	0	0	0	Acetyltransferases	cytoplasm [pmid 15496142];	N-acetyltransferase activity;
1894	2	1.8E-05	0	0	NF		ENSG00000135336	ELAVL4			g	38605723	ref	NP_0	ELAV (embryonic lethal, abn	380	42151	5.6	0	o	G	34	0	0	0	0	0	0	1	4.29E-05	0.000101	0	0	0	0	0	1	3.6E-05	7.2E-05	0	0	0	0	0	0	0	0	WD40 domain, found in a		protein activity
1895	2	1.8E-05	0	0	NF		ENSG00000164332	UBLCP1			g	21450802	ref	NP_0	ubiquitin-like domain contain	318	36733	6.7	0	o	G	21	0	7.33E-05	0	0	0	0	1	1.83E-05	3.67E-05	0	7.06E-05	0	0	0	1	1.76E-05	3.53E-05	0	0	0	0	0	0	0	0	The UBP (ubiquitin	nucleus	hydrolase activity;
1896	2	1.79E-05	0	0	NF		ENSG00000117408	IPO13			g	41281425	ref	NP_0	importin 13 [Homo sapiens]	963	108211	5.3	0	o	G	23	0	0	0	0	0	0	1	0	0	2.33E-05	0	0.00012	2	3.57E-05	5.7E-05	0	0	0	0	0	0	0	0	Exportin 1-like protein. The	cytoplasm; nuclear pore;	protein binding [pmid
1897	2	1.78E-05	0	0	NF		ENSG00000196954	CASP4			g	15451910	ref	NP_0	caspase 4 isoform gamma [	321	36705	5.7	0	o	G	29	0	7.27E-05	0	0	0	0	1	1.82E-05	3.63E-05	0	5.99E-05	0	0	0	1	1.75E-05	3.5E-05	0	0	0	0	0	0	0	0	Caspase. Interleukin-1 beta	cytoplasm; intracellular	cysteine-
1898	2	1.78E-05	0	0	NF		ENSG00000164024	METAP1			g	24308009	ref	NP_0	methionyl aminopeptidase 1	272	30369	6.6	0	o	G	0	0	0	0	0	0	0	1	0	0	8.25E-05	0.00006	0	0	0	2	3.56E-05	4.21E-05	0	0	0	0	0	0	0	0	Methionine Aminopeptidase	cytoplasm [pmid 14532271]	cobalt ion binding; metal ion
1899	2	1.78E-05	0	0	NF		ENSG00000157102	FLI1			g	7110593	ref	NP_0	Friend leukemia virus integrat	452	50982	7.5	0	o	G	25	0	0.000103	0	3.91E-05	0	0	2	3.56E-05	4.87E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	SAM / Pointed domain; A	nucleus	sequence-specific DNA
1900	2	1.78E-05	0	0	NF		ENSG00000198841	KTI12			g	19923939	ref	NP_	KTI12 homolog, chromatin as	354	38616	7	0	o	G	19	0.148	0	0	4.99E-05	0	0	1	1.25E-05	2.49E-05	0	0	9.22E-05	0	0	1	2.31E-05	4.61E-05	0	0	0	0	0	0	0	0	Chromatin associated		
1901	2	1.77E-05	0	0	NF		ENSG00000135387	CAPRIN1			g	42558250	ref	NP_	membrane component chrom	709	78366	5.2	0	o	G	41	0.122	0	0	4.98E-05	0	0	1	1.25E-05	2.49E-05	0	0	9.21E-05	0	0	1	2.3E-05	4.6E-05	0	0	0	0	0	0	0	0		integral to plasma membrane	GPI anchor binding	
1902	2	1.76E-05	0	0	NF		ENSG00000115689	INPP5J			g	45047031	ref	NP_0	5-phosphoinositol polyphosphate 1-pho	399	45398	5.3	0	o	G	22	0.001	0	0	4.43E-05	0	0	1	1.11E-05	2.21E-05	0	0	0.62E-05	0	0	1	2.41E-05	4.81E-05	0	0	0	0	0	0	0	0	IPPase; Inositol		hydrolase activity; inositol or
1903	2	1.76E-05	0	0	NF		ENSG00000112685	EXOC2			g	21361625	ref	NP_0	Sec5 protein [Homo sapiens]	924	104066	6.9	0	o	G	19	0.008	0	0	5.74E-05	0	0	1	1.43E-05	2.87E-05	0	0	8.31E-05	0	0	1	2.08E-05	4.15E-05	0	0	0	0	0	0	0	0	First repeat of the IPT		protein binding [pmid
1904	2	1.75E-05	0	0	NF		ENSG00000164134	NARG1			g	17149828	ref	NP_0	NMDA receptor regulated 1	866	101272	7.4	0	o	G	0	0	0	0	0.000102	0	0	1	2.55E-05	5.1E-05	0	3.77E-05	0	0	0	1	9.42E-06	1.88E-05	0	0	0	0	0	0	0	0	Tetratricopeptide repeat	cytoplasm [pmid 12140756]	acetyltransferase activity
1905	2	1.74E-05	0	0	NF		ENSG00000250253				g	19923416	ref	NP_0	KIAA1008 [Homo sapiens]	958	105520	5.3	0	o	G	43	0.001	0	0	9.22E-05	0	0	1	2.31E-05	4.62E-05	0	4.68E-05	0	0	0	1	1.17E-05	2.34E-05	0	0	0	0	0	0	0	0	Large family of predicted	exosome (RNase complex)	5'-nucleotide activity; GDP-
1906	2	1.73E-05	0	0	NF		ENSG00000187994	RINL			g	38346206	ref	NP_0	hypothetical protein LOC126	452	50053	6.1	0	o	S	20	0.505	0	0	3.91E-05	0	0	1	9.77E-06	1.95E-05	0	9.93E-05	0	0	0	1	2.48E-05	4.96E-05	0	0	0	0	0	0	0	0	Vacuolar sorting protein 9		
1907	2	1.73E-05	0	0	NF		ENSG00000135330	RAVX1			g	11945639	ref	NP_0	ravin, gamma [Homo sapiens	331	38205	7.5	0	o	G	19	0	7.05E-05	0	0	0	0	1	1.76E-05	3.52E-05	0	6.78E-05	0	0	0	1	1.69E-05	3.39E-05	0	0	0	0	0	0	0	0	Calponin homology (CH)	cytoskeleton [pmid 11171322]	actin binding [pmid
1908	2	1.73E-05	0	0	NF		ENSG00000136653	RASSF5			g	32996731	ref	NP_0	Ras association (RalGDS/AF	418	47090	9.1	0	o	G	18	0	0	0	8.45E-05	0	0	1	2.11E-05	4.23E-05	0	5.37E-05	0	0	0	1	1.34E-05	2.68E-05	0	0	0	0	0	0	0	0	Protein kinase C conserved	microtubule	diacylglycerol binding; metal
1909	2	1.73E-05	0	0	NF		ENSG00000155903	RASA2			g	12545408	ref	NP_0	RAS p21 protein activator 2	849	96527	7.2	0	o	S	21	0.977	0	5.49E-05	8.32E-05	0	0	2	3.46E-05	4.15E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	BTK motif. Zinc-binding	intracellular	metal ion binding; Ras
1910	2	1.72E-05	0	0	NF		ENSG00000162619	FLIBP1			g	11405200	ref	NP_0	factor upstream element-binding	644	67980	7.6	0	o	S	25	0.001	0	3.62E-05	0	0	0	1	9.04E-06	1.81E-05	0	0.00010	0	0	0	1	2.53E-05	5.07E-05	0	0	0	0	0	0	0	0	K homology RNA-binding	nucleus	single stranded DNA binding
1911	2	1.72E-05	1	2.8E-06	6.149588		ENSG00000164922	COL1A2			g	48762934	ref	NP_0	alpha 2 type I collagen [Hom	1366	129314	9	0	o	G	25	0.997	0	0.000138	0	0	0.000138	2	3.44E-05	6.88E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.24E-05	Collagen triple helix repeat	collagen; collagen type I;	extracellular matrix structural
1912	2	1.71E-05	0	0	NF		ENSG00000123434	LANCL1			g	8923911	ref	NP_0	LanC lantibiotic synthetase c	450	50854	7.4	0	o	G	45	0	5.18E-05	0	0	0	0	1	1.3E-05	2.59E-05	0	8.53E-05	0	0	0	1	2.13E-05	4.27E-05	0	0	0	0	0	0	0	0	Lanthionine synthetase C-	cytosol [pmid 12566319]	ATP binding [pmid
1913	2	1.7E-05	0	0	NF		ENSG00000172673	C6orf190			g|55219189|ref|NP_0	hypothetical protein LOC387	440	73452	5.9	0	o	G	19	0	0	0	0	0	0	1	0	0	7.64E-05	5.99E-05	0	7.64E-05	0	0	0	1	2.41E-05	3.99E-05	0	0	0	0	0	0	0	0			
1914	2	1.7E-05	0	0	NF		ENSG00000168889	PATL1			g	22749427	ref	NP_0	protein associated with topoi	627	70639	9.7	0	o	G	17	0.001	0	7.44E-05	0	0	0	1	1.86E-05	3.72E-05	0	0	6.12E-05	0	0	1	1.53E-05	3.06E-05	0	0	0	0	0	0	0	0			
1915	2	1.69E-05	0	0	NF		ENSG00000179878	DPP7			g	24208889	ref	NP_0	dipeptidyl peptidase 7 prepro	492	54341	5.8	0	o	G	22	0	0	0	3.59E-05	0	0	1	8.98E-06	1.8E-05	0	9.95E-05	0	0	0	1	2.49E-05	4.98E-05	0	0	0	0	0	0	0	0	Serine carboxypeptidase	lysosome	aminopeptidase activity;
1916	2	1.69E-05	0	0	NF		ENSG00000138279	ANXA7			g	4502111	ref	NP_0	annexin VII isoform 1 [Homo	466	50316	6.6	0	o	G	0	0	0.0001	0	0	0	0	1	2.5E-05	5.01E-05	0	0	0	0	0	1	8.76E-06	1.75E-05	0	0	0	0	0	0	0	0	Annexin. This family of		calcium ion binding; calcium-
1917	2	1.69E-05	0	0	NF		ENSG00000110934	BIN2			g	44972835	ref	NP_0	bridging integrator 2 [Homo s	565	61874	5.1	0	o	G	25	0.001	0	4.13E-05	0	9.38E-05	0	1	2.38E-05	4.45E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	BAR domain. The BAR	cytoplasm	protein binding
1918	2	1.68E-05	0	0	NF		ENSG00000188488	FTO			g	12092726	ref	NP_0	fat mass and obesity associa	505	58282	5.2	0	o	G	0	0	0	0	7.56E-05	0	0	1	1.78E-05	3.56E-05	0	6.46E-05	0	0	0	1	1.62E-05	3.23E-05	0	0	0	0	0	0	0	0			
1919	2	1.68E-05	0	0	NF		ENSG00000142765	SYTL1			g	14249614	ref	NP_0	synaptotagmin-like 1 [Homo	550	60635	5.5	0	o	G	24	0.168	0	0	6.42E-05	0	0	1	1.61E-05	3.21E-05	0	0	6.98E-05	0	0	1	1.74E-05	3.49E-05	0	0	0	0	0	0	0	0	Protein kinase C conserved	extrinsic to plasma membrane	ATP binding; hydrogen-
1920	2	1.67E-05

																					RESTING LYMPHOCYTES NEs								PHA-TREATED LYMPHOCYTES NEs								MMs										
rk	NEs detected # out of 10 runs	NEs dNSAF_AVG	MMs detected # out of 8 runs	MMs dNSAF_AVG	NEs:MMs	Detected in Mitochondria	ORTHO_GROUP	GENE_NAME	NET_NAME	Location & Gene Expression Data	Locus	Description	Length	MW	pI	PredHel	TMHMM_Topology	SIGNALP_HMM_TYPE (S= signal; A= Anchor; Q= none)	SIGNALP_HMM_POS	SIGNALP_HMM_SPROB	HsNaOH-NE_NT_lymphocytes_CNBrTi_1_dNSAF	HsNaOH-NE_NT_lymphocytes_Ti_1_dNSAF	HsNaOH-NE_NT_lymphocytes_PK_1_dNSAF	HsSD-NE_NT_lymphocytes_Ti_1_dNSAF	HsSD-NE_NT_lymphocytes_PK_1_dNSAF	NT-bNEs Detected # Out of 5	NT-bNEs dNSAF AVG	NT-bNEs dNSAF SDV	HsNaOH-NE_PHA_lymphocytes_CNBrTi_1_dNSAF	HsNaOH-NE_PHA_lymphocytes_Ti_1_dNSAF	HsNaOH-NE_PHA_lymphocytes_PK_1_dNSAF	HsSD-NE_PHA_lymphocytes_Ti_1_dNSAF	HsSD-NE_PHA_lymphocytes_PK_1_dNSAF	PHA-bNEs Detected # Out of 5	PHA-bNEs dNSAF AVG	PHA-bNEs dNSAF SDV	MmNaOH-MM_liver_CNBrTi_1_dNSAF	MmNaOH-MM_liver_CNBrTi_2_dNSAF	RnNaOH-MM_liver_Ti_1_dNSAF	RnNaOH-MM_liver_Ti_2_dNSAF	RnNaOH-MM_liver_Ti_3_dNSAF	RnNaOH-MM_liver_Ti_4_dNSAF	RnNaOH-MM_liver_PK_1_dNSAF	RnNaOH-MM_liver_PK_2_dNSAF	Region_Note	GO_Component	GO_Function
2010	2	1.13E-05	0	0	INF		ENSG00000204197:E	KIFC1			gi|28626498|ref|NP_	kinesin family member C1 [H	673	73744	9	0	o	Q	0	0	0	0	0	0	0	0	0	0	0	3.33E-05	0	0	5.7E-05	2	2.26E-05	2.78E-05	0	0	0	0	0	0	0	0	Kinesin motor domain,	microtubule; microtubule	ATP binding [pmid 8276466];
2011	2	1.13E-05	0	0	INF		ENSG00000173575:N	CHD2			gi|118421089|ref|NP	chromodomain helicase DNA	1828	211342	8.1	0	o	Q	0	0	0	6.12E-05	0	2.9E-05	0	2	2.26E-05	2.92E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2012	2	1.13E-05	0	0	INF		ENSG00000084463:N	WBP11			gi|7706501|ref|NP_0	WW domain binding protein	641	69998	8.4	0	o	Q	0	0	0	0	0	5.51E-05	0	1	1.38E-05	2.76E-05	0	3.5E-05	0	0	0	1	8.75E-06	1.75E-05	0	0	0	0	0	0	0	0	V-type ATP synthase	nucleus [pmid 10593949]	protein binding [pmid
2013	2	1.12E-05	0	0	INF		ENSG00000105447:E	GRWD1			gi|31542862|ref|NP_	glutamate-rich WD repeat co	446	49346	4.9	0	o	Q	22	0	0	0	0	3.96E-05	0	1	9.9E-06	1.98E-05	0	5.03E-05	0	0	0	1	1.26E-05	2.52E-05	0	0	0	0	0	0	0	0	WD40 domain, found in a	nucleus	
2014	2	1.12E-05	0	0	INF		ENSG00000128191:E	DGCR8			gi|38488720|ref|NP_	DiGeorge syndrome critical r	773	86045	5.9	0	o	Q	25	0	0	0	0	6.86E-05	0	1	1.71E-05	3.43E-05	0	0	0	2.11E-05	0	1	5.28E-06	1.06E-05	0	0	0	0	0	0	0	0	Double-stranded RNA	cytoplasm [pmid 11256614];	double-stranded RNA
2015	2	1.11E-05	0	0	INF		ENSG00000080608:E	KIAA0020			gi|109948283|ref|NP	KIAA0020 protein [Homo sap	648	73584	9.6	0	o	Q	0	0	0	0	0	5.45E-05	0	1	1.36E-05	2.73E-05	0	3.46E-05	0	0	0	1	8.66E-06	1.73E-05	0	0	0	0	0	0	0	0			
2016	2	1.11E-05	0	0	INF		ENSG00000120800:E	UTP20			gi|120587023|ref|NP	down-regulated in metastasis	2785	318385	7.4	0	o	Q	25	0	0	0	0	6.34E-06	0	1	1.59E-06	3.17E-06	0	0	0	0	8.27E-05	1	2.07E-05	4.14E-05	0	0	0	0	0	0	0	0			
2017	2	1.11E-05	0	0	INF		ENSG00000065268:E	WDR18			gi|56243583|ref|NP_	WD repeat domain 18 [Homo	432	47405	6.7	0	o	Q	20	0.041	0	0	0	0	0.001885	1	0	0	0	0	0	0	8.89E-05	1	2.22E-05	4.44E-05	0	0	0	0	0	0	0	0	WD40 domain, found in a		
2018	2	1.11E-05	0	0	INF		ENSG00000167483:E	FAM129C			gi|148664236|ref|NP	B-cell novel protein 1 isoform	651	72185	8.1	0	o	Q	25	0.001	0	0	0	5.43E-05	0	1	1.36E-05	2.71E-05	0	3.45E-05	0	0	0	1	8.62E-06	1.72E-05	0	0	0	0	0	0	0	0			
2019	2	1.11E-05	0	0	INF		ENSG00000129484:E	PARP2			gi|110825961|ref|NP	poly (ADP-ribose) polymeras	583	66206	8.9	0	o	Q	21	0	0	0	0	6.06E-05	0	1	1.51E-05	3.03E-05	0	0	0	2.8E-05	0	1	7E-06	1.4E-05	0	0	0	0	0	0	0	0			
2020	2	1.1E-05	0	0	INF		ENSG00000185215:E	TNFAIP2			gi|26051240|ref|NP_	tumor necrosis factor, alpha-	654	72661	6.5	0	o	Q	18	0	0	0	0	5.4E-05	0	1	1.35E-05	2.7E-05	0	3.43E-05	0	0	0	1	8.58E-06	1.72E-05	0	0	0	0	0	0	0	0	Exocyst complex	extracellular space [pmid	
2021	2	1.09E-05	0	0	INF		ENSG00000127586:E	CHTF18			gi|27501458|ref|NP_	CTF18, chromosome transm	975	107383	7.2	0	o	Q	0	0	0	4.78E-05	0	0	0	1	1.2E-05	2.39E-05	0	0	0	0	3.94E-05	1	9.84E-06	1.97E-05	0	0	0	0	0	0	0	0	AAA-superfamily of		ATP binding; helicase
2022	2	1.08E-05	0	0	INF		ENSG00000150990:E	DHX37			gi|29029601|ref|NP_	DEAH (Asp-Glu-Ala-His) box	1157	129545	8.1	0	o	Q	0	0	0	2.02E-05	0	0	0	1	5.04E-06	1.01E-05	0	0	0	0	6.64E-05	1	1.66E-05	3.32E-05	0	0	0	0	0	0	0	0	DEXH-box helicases. A		ATP binding; ATP-dependent
2023	2	1.08E-05	0	0	INF		ENSG00000182481:E	LOC728860			gi|169211157|ref|XP	PREDICTED: similar to Kary	529	57862	5.4	0	o	Q	0	0	0	4.41E-05	0	0	0	1	1.1E-05	2.2E-05	0	4.24E-05	0	0	0	1	1.06E-05	2.12E-05	0	0	0	0	0	0	0	0			
2024	2	1.08E-05	0	0	INF		ENSG00000137713:E	PPP2R1B			gi|32455244|ref|NP_	beta isoform of regulatory su	667	73585	5.1	0	o	Q	16	0.01	0	4.37E-05	0	4.27E-05	0	2	2.16E-05	2.49E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	HEAT repeat. The HEAT	cytosol; membrane;	antigen binding; binding;
2025	2	1.08E-05	0	0	INF		ENSG00000185246:E	PRPF39			gi|156938331|ref|NP	PRP39 pre-mRNA processin	669	78430	5.4	0	o	Q	0	0	0	0	0	5.28E-05	0	1	1.32E-05	2.64E-05	0	3.35E-05	0	0	0	1	8.38E-06	1.68E-05	0	0	0	0	0	0	0	0			
2026	2	1.08E-05	0	0	INF		ENSG00000042429:E	MED17			gi|28558975|ref|NP_	mediator complex subunit 17	651	72890	7.4	0	o	Q	16	0	0	0	0	2.71E-05	0	1	6.78E-06	1.36E-05	0	0	0	0	5.9E-05	1	1.47E-05	2.95E-05	0	0	0	0	0	0	0	0		mediator complex [pmid	ligand-dependent nuclear
2027	2	1.07E-05	0	0	INF		ENSG00000099917:E	MED15			gi|21312134|ref|NP_	mediator complex subunit 15	748	82581	9.3	0	o	Q	0	0	0	6.24E-05	0	2.36E-05	0	2	2.15E-05	2.94E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		nucleus	
2028	2	1.07E-05	0	0	INF		ENSG00000157212:E	PAXIP1			gi|93141033|ref|NP_	PAX interacting protein 1 [Ho	1069	121341	6.7	0	o	Q	0	0	0	4.36E-05	0	0	0	1	1.09E-05	2.18E-05	0	4.2E-05	0	0	0	1	1.05E-05	2.1E-05	0	0	0	0	0	0	0	0	Breast Cancer Suppressor	intracellular	
2029	2	1.04E-05	0	0	INF		ENSG00000154710:E	RABGEF1			gi|7657496|ref|NP_0	RAB guanine nucleotide exc	491	56891	7	0	o	Q	0	0	0	4.75E-05	0	3.6E-05	0	2	2.09E-05	2.46E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A20-like zinc fingers; A20-		DNA binding; metal ion
2030	2	1.04E-05	0	0	INF		ENSG00000123213:E	NLN			gi|14149738|ref|NP_	neurolysin [Homo sapiens]	704	80652	6.6	0	o	Q	18	0.361	0	3.31E-05	0	5.02E-05	0	2	2.08E-05	2.5E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Peptidase family M3. This	mitochondrion	hydrolase activity; metal ion
2031	2	1.04E-05	0	0	INF		ENSG00000101126:E	ADNP			gi|31563503|ref|NP_	activity-dependent neuroprot	1102	123563	7.3	0	o	Q	16	0	0	4.23E-05	0	0	0	1	1.06E-05	2.12E-05	0	4.07E-05	0	0	0	1	1.02E-05	2.04E-05	0	0	0	0	0	0	0	0	Homeodomain; DNA binding	intracellular; nucleus	metal ion binding; sequence-
2032	2	1.04E-05	0	0	INF		ENSG00000112782:E	LOC100131610			gi|169169023|ref|XP	PREDICTED: similar to chlor	410	46503	4.8	0	o	Q	0	0	0	0	0	4.31E-05	0	1	1.08E-05	2.15E-05	0	0	0	3.98E-05	0	1	9.95E-06	1.99E-05	0	0	0	0	0	0	0	0			
2033	2	1.03E-05	0	0	INF		ENSG00000129347:E	KRI1			gi|145580615|ref|NP	KRI1 homolog [Homo sapien	709	83252	5.2	0	o	Q	24	0	0	3.29E-05	0	4.98E-05	0	2	2.07E-05	2.49E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2034	2	1.03E-05	0	0	INF		ENSG00000146085:E	MUT			gi|156105689|ref|NP	methylmalonyl Coenzyme A	750	83135	6.9	0	o	Q	25	0.016	0	3.11E-05	0	0	0	1	7.77E-06	1.55E-05	0	0	0	0	5.12E-05	1	1.28E-05	2.56E-05	0	0	0	0	0	0	0	0			
2035	2	1.03E-05	0	0	INF		ENSG00000159086:E	C21orf66			gi|22035565|ref|NP_	GC-rich sequence DNA-bind	917	104804	5.7	0	o	Q	0	0	0	0	0	5.78E-05	0	1	1.44E-05	2.89E-05	0	2.45E-05	0	0	0	1	6.12E-06	1.22E-05	0	0	0	0	0	0	0	0	GC-rich sequence DNA-	nucleus	transcription factor activity
2036	2	1.03E-05	0	0	INF		ENSG00000099308:E	MAST3			gi|150170729|ref|NP	microtubule associated serin	1309	143137	8.1	0	o	Q	44	0.002	0	0	0	1.35E-05	0	1	3.37E-06	6.75E-06	0	6.86E-05	0	0	0	1	1.71E-05	3.43E-05	0	0	0	0	0	0	0	0			
2037	2	1.02E-05	0	0	INF		ENSG00000187239:E	FNBP1			gi|38524622|ref|NP_	formin binding protein 1 [Hon	617	71307	5.7	0	o	Q	0	0	0	0	0	2.86E-05	0	1	7.16E-06	1.43E-05	0	0	0	5.29E-05	0	1	1.32E-05	2.65E-05	0	0	0	0	0	0	0	0	Src homology 3 domains;	intracellular; ribosome	RNA binding; structural
2038	2	1.02E-05	0	0	INF		ENSG00000130299:E	GTPBP3			gi|14249126|ref|NP_	GTP binding protein 3 (mitoc	492	52030	6.5	0	o	S	45	0.967	0	0	0	3.59E-05	0	1	8.98E-06	1.8E-05	0	4.56E-05	0	0	0	1	1.14E-05	2.28E-05	0	0	0	0	0	0	0	0	TrmE (MnmE, ThdF, MSS1)	intracellular	GTP binding; GTPase
2039	2	1.01E-05	0	0	INF		ENSG00000110075:E	SAPS3			gi|13489083|ref|NP_	SAPS domain family, membe	793	88952	4.6	0	o	Q	18	0	0	5.88E-05	0	2.23E-05	0	2	2.03E-05	2.78E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	SIT4 phosphatase-		binding
2040	2	1.01E-05	0	0	INF		ENSG00000138080:E	EMILIN1			gi|5901944|ref|NP_0	elastin microfibril interfacer 1	1016	106695	5.2	0	o	S	24	1	0	4.59E-05	0	3.48E-05	0	2	2.02E-05	2.37E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	EMI domain. The Pfam	cytoplasm; extracellular matrix	extracellular matrix structural
2041	2	1.01E-05	0	0	INF		ENSG00000171824:E	EXOSC10			gi|4505917|ref|NP_0	exosome component 10 isofo	860	98089	8.4	0	o	Q	23	0.013	0	0	0	6.16E-05	0	1	1.54E-05	3.08E-05	0	0	0	1.9E-05	0	1	4.74E-06	9.49E-06	0	0	0	0	0	0	0	0	3'-5' exonuclease. The	intracellular; nucleolus [pmid	3'-5' exonuclease activity;
2042	2	9.91E-06	0	0	INF		ENSG00000105819:E	PMPCB			gi|94538354|ref|NP_	mitochondrial processing pep	489	54366	6.8	0	o	S	33	0.923	0	0	0	0	0	0	0	0	0	4.59E-05	0	3.34E-05	0	2	1.98E-05	2.34E-05	0	0	0	0	0	0	0	0	Peptidase M16 inactive	mitochondrion	metal ion binding;
2043	2	9.9E-06	0	0	INF		ENSG00000113649:E	TCERG1			gi|21327715|ref|NP_	transcription elongation regu	1098	123901	8.6	0	o	Q	0	0	0	0	0	6.44E-05	0	1	1.61E-05	3.22E-05	0	0	0	1.49E-05	0	1	3.72E-06	7.43E-06	0	0	0	0	0	0	0	0	Two conserved tryptophans	nucleus [pmid 9315662]	protein binding [pmid
2044	2	9.87E-06	0	0	INF		ENSG00000179151:E	EDC3			gi|19923613|ref|NP_	enhancer of mRNA decappin	508	56078	7.1	0	o	Q	18	0.049	0	0	0	3.48E-05	0	1	8.69E-06	1.74E-05	0	4.42E-05	0	0	0	1	1.1E-05	2.21E-05	0	0	0	0	0	0	0	0	LSm16 belongs to a family		
2045	2	9.82E-06	0	0	INF		ENSG00000114857:E	NKTR			gi|6631100|ref|NP_0	natural killer-tumor recognitic	1462	165676	10	0	o	Q	0	0	0	4.79E-05	0	0	0	1	1.2E-05	2.39E-05	0	3.07E-05	0	0	0	1	7.67E-06	1.53E-05	0	0	0	0	0	0	0	0	cyclophilin_ABH_like:	plasma membrane	cyclosporin A binding [pmid
2046	2	9.81E-06	0	0	INF		ENSG00000136573:E	BLK			gi|33469982|ref|NP_	B lymphoid tyrosine kinase [H	505	57707	7.9	0	o	Q	0	0	0	4.62E-05	0	0	0	1	1.15E-05	2.31E-05	0	0	0	3.23E-05	0	1	8.08E-06	1.62E-05	0	0	0	0	0	0	0	0	Src homology 3 domains;		ATP binding; nucleotide
2047	2	9.61E-06	0	0	INF		ENSG00000020129:E	NCDN			gi|62526029|ref|NP_	neurochondrin isoform 1 [Ho	729	78864	5.5	0	o	Q	20	0.044	0	0	0	2.42E-05	0	1	6.06E-06	1.21E-05	0	0	0	0	5.27E-05	1	1.32E-05	2.63E-05	0	0	0	0	0	0	0	0	Neurochondrin. This family		
2048	2	9.53E-06	0	0	INF		ENSG00000111364:E	DDX55			gi|41327779|ref|NP_	DEAD (Asp-Glu-Ala-Asp) box	600	68547	9.2	0	o	Q	23	0.001	0	3.89E-05	0	0	0	1	9.72E-06	1.94E-05	0	3.74E-05	0	0	0	1	9.35E-06	1.87E-05	0	0	0	0	0	0	0	0	Helicase superfamily c-		ATP binding; ATP-dependent
2049	2	9.46E-06	0	0	INF		ENSG00000124535:E	WRNIP1			gi|18426902|ref|NP_	Werner helicase interacting p	665	72133	6.1	0	o	Q	25	0	0	0	0	2.66E-05	0	1	6.64E-06	1.33E-05	0	0	0	4.91E-05	0	1	1.23E-05	2.45E-05	0	0	0	0	0	0	0	0	Rad18-like CCHC zinc	nucleus	ATP binding [pmid
2050	2	9.44E-06	0	0	INF		ENSG00000136152:E	COG3			gi|13899251|ref|NP_	component of golgi transport	828	94043	5.6	0	o	Q	15	0.324	0	0	0	2.13E-05	0	1	5.33E-06	1.07E-05	0	5.42E-05	0	0	0	1	1.35E-05	2.71E-05	0	0	0	0	0	0	0	0	Sec34-like family. Sec34	Golgi cis face; membrane	
2051	2	9.41E-06	0	0	INF		ENSG00000167984:E	NLRC3			gi|118918429|ref|NP	NOD3 protein [Homo sapiens	1065	114657	8.3	0	o	Q	40	0	0	0	0	3.32E-05	0	1	8.29E-06	1.66E-05	0	4.21E-05	0	0	0	1	1.05E-05	2.11E-05	0	0	0	0	0	0	0	0			
2052	2	9.26E-06	0	0	INF		ENSG00000146247:E	PHIP			gi|34996489|ref|NP_	pleckstrin homology domain	1821	206646	8.8	0	o	Q	31	0.003	0	2.56E-05	0	4.85E-05	0	2	1.85E-05	2.33E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	WD40 domain, found in a		insulin receptor binding [pmid
2053	2	9.23E-06	0	0	INF		ENSG00000115211:E	EIF2B4			gi|41281817|ref|NP_	eukaryotic translation initiatio	543	59630	9.4	0	o	S	34	0.858	0	0	0	3.25E-05	0	1	8.13E-06	1.63E-05	0	4.13E-05	0	0	0	1	1.03E-05	2.07E-05	0	0	0	0	0	0	0	0	Initiation factor 2 subunit	cytoplasm [pmid 11323413];	guanyl-nucleotide exchange
2054	2	9.21E-06	0	0	INF		ENSG00000119969:E	HELLS			gi|21914927|ref|NP_	helicase, lymphoid-specific [H	838	97074	7.9	0	o	Q	24	0	0	2.78E-05	0	0	0	1	6.96E-06	1.39E-05	0	0	0	0	4.58E-05	1	1.15E-05	2.29E-05	0	0	0	0	0	0	0	0	Helicase superfamily c-		ATP binding; DNA binding;
2055	2	9.2E-06	0	0	INF		ENSG00000198730:E	CTR9			gi|7661950|ref|NP_0	SH2 domain binding protein	1173	133502	6.8	0	o	Q	0	0	0	5.97E-05	0	0	0	1	1.49E-05	2.98E-05	0	0	0	1.39E-05	0	1	3.48E-06	6.96E-06	0	0	0	0	0	0	0	0	Tetratricopeptide repeat	nucleus	binding
2056	2	9.17E-06	0	0	INF		ENSG00000138801:E	PAPSS1			gi|46094058|ref|NP_	3'-phosphoadenosine 5'-phos	624	70833	6.9	0	o	Q	65	0	0	3.74E-05	0	0	0	1	9.34E-06	1.87E-05	0	3.6E-05	0	0	0	1	8.99E-06	1.8E-05	0	0	0	0	0	0	0	0	ATP-sulfurylase. This family	intracellular	adenylylsulfate kinase
2057	2	8.75E-06	0	0	INF		ENSG00000181192:E	DHTKD1			gi|38788380|ref|NP_	dehydrogenase E1 and trans	919	103043	6.9	0	o	Q	26	0.263	0	5.08E-05	0	1.92E-05	0	2	1.75E-05	2.4E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Thiamine pyrophosphate		oxoglutarate dehydrogenase
2058	2	8.71E-06	0	0	INF		ENSG00000100425:E	BRD1			gi|11321642|ref|NP_	bromodomain containing pro	1058	119520	8.6	0	o	Q	37	0	0	0	0	3.34E-05	0	1	8.35E-06	1.67E-05	0	0	0	0	3.63E-05	1	9.07E-06	1.81E-05	0	0	0	0	0	0	0	0	domain with conserved	nucleus [pmid 10602503]	metal ion binding; protein
2059	2	8.68E-06	0	0	INF		ENSG00000167202:E	TBC1D2B			gi|40353247|ref|NP_	TBC1 domain family, membe	788	90733	6.4	0	o	Q	0	0	0	0	0	0	0	0	0	0	0	0	0	2.07E-05	4.87E-05	2	1.74E-05	2.31E-05	0	0	0	0	0	0	0	0	TBC domain. Identification		
2060	2	8.65E-06	0	0	INF		ENSG00000168944:E	CEP120			gi|96975038|ref|NP_	coiled-coil domain containing	986	112640	6.3	0	o	Q	18	0.032	0	2.37E-05	0	0	0	1	5.91E-06	1.18E-05	0	4.55E-05	0	0	0	1	1.14E-05	2.28E-05	0	0	0	0	0	0	0	0			
2061	2	8.49E-06	0	0	INF		ENSG00000105732:E	ZNF574			gi|154744870|ref|NP	zinc finger protein 574 [Homo	896	98900	8.1	0	o	Q	0	0	0	0	0	0	0	0	0	0	0	2.5E-05	0	0	4.28E-05	2	1.7E-05	2.09E-05	0	0	0	0	0	0	0	0			
2062	2	8.47E-06	0	0	INF		ENSG00000172660:E	TAF15			gi|21327701|ref|NP_	TBP-associated factor 15 iso	592	61830	8	0	o	Q	0	0	0	0	0	2.98E-05	0	1	7.46E-06	1.49E-05	0	3.79E-05	0	0	0	1	9.47E-06	1.89E-05	0	0	0	0	0	0	0	0	Zn-finger in Ran binding	intracellular; nucleus;	DNA binding; metal ion
2063	2	8.4E-06	0	0	INF		ENSG00000007816:N	WDR46			gi|9954875|ref|NP_0	WD repeat domain 46 [Homo	610	68041	9.7	0	o	Q	0	0	0	3.82E-05	0	2.9E-05	0	2	1.68E-05	1.98E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	WD40 domain, found in a		
2064	2	8.38E-06	0	0	INF		ENSG00000135439:E	CENTG1			gi|7661962|ref|NP_0	centaurin, gamma 1 [Homo s	836	90537	8.8	0	o	Q	15	0.002	0	0	0	2.11E-05	0	1	5.28E-06	1.06E-05	0	0	0	0	4.59E-05	1	1.15E-05	2.3E-05	0	0	0	0	0	0	0	0	Putative GTPase activating	nucleus [pmid 11136977]	GTP binding; GTPase
2065	2	8.37E-06	0	0	INF		ENSG00000168438:E	CDC40			gi|7706657|ref|NP_0	cell division cycle 40 homolo	579	65521	7.1	0	o	S	18	0.964	0	0	0	0	0	0	0	0	0	3.87E-05	0	2.82E-05	0	2	1.67E-05	1.98E-05	0	0	0	0	0	0	0	0	WD40 domain, found in a	nucleus; spliceosome complex	
2066	2	8.21E-06	0	0	INF		ENSG00000004534:E	RBM6			gi|5032033|ref|NP_0	RNA binding motif protein 6 [	1123	128644	6.3	0	o	Q	0	0	0	0	0	3.15E-05	0	1	7.86E-06	1.57E-05	0	0	0	0	3.42E-05	1	8.55E-06	1.71E-05	0	0	0	0	0	0	0	0	glycine rich nucleic binding	intracellular; nucleus [pmid	DNA binding [pmid
2067	2	8.2E-06	0	0	INF		ENSG00000009307:E	CSDE1			gi|56117850|ref|NP_	upstream of NRAS isoform 2	767	85747	6.2	0	o	Q	0	0	0	0	0	2.3E-05	0	1	5.76E-06	1.15E-05	0	0	0	4.26E-05	0	1	1.06E-05	2.13E-05	0	0	0	0	0	0	0	0	Cold shock protein domain;		DNA binding; RNA binding
2068	2	8.19E-06	0	0	INF		ENSG00000148308:E	GTF3C5			gi|6912402|ref|NP_0	general transcription factor II	519	59630	7.1	0	o	Q	19	0.008	0	0	0	3.4E-05	0	1	8.51E-06	1.7E-05	0	0	0	3.14E-05	0	1	7.86E-06	1.57E-05	0	0	0	0	0	0	0	0		nucleus; transcription factor	DNA binding; RNA
2069	2	8.18E-06	0	0	INF		ENSG00000074054:E	CLASP1			gi|31563537|ref|NP_	CLIP-associating protein 1 [H	1538	169450	9	0	o	Q	19	0	0	4.04E-05	0	0	0	1	1.01E-05	2.02E-05	0	0	0	0	2.5E-05	1	6.24E-06	1.25E-05	0	0	0	0	0	0	0	0	HEAT repeat. The HEAT	centrosome [pmid 12837247]	binding; kinetochore binding
2070	2	8.14E-06	0	0	INF		ENSG00000164430:E	C6orf150			gi|115511030|ref|NP	hypothetical protein LOC115	522	58815	9.5	0	o	Q	25	0.015	0	0	0	3.38E-05	0	1	8.46E-06	1.69E-05	0	0	0	3.13E-05	0	1	7.82E-06	1.56E-05	0	0	0	0	0	0	0	0			
2071	2	8.02E-06	0	0	INF		ENSG00000156931:E	VPS8			gi|57863275|ref|NP_	vacuolar protein sorting 8 ho	1426	161568	5.6	0	o	Q	0	0	0	3.27E-05	0	0	0	1	8.18E-06	1.64E-05	0	3.15E-05	0	0	0	1	7.87E-06	1.57E-05	0	0	0	0	0	0	0	0	WD40 domain, found in a		metal ion binding; protein
2072	2	7.9E-06	0	0	INF		ENSG00000115816:E	CEBPZ			gi|42542392|ref|NP_	CCAAT/enhancer binding pro	1054	120974	5.9	0	o	Q	0	0	0	0	0	1.68E-05	0	1	4.19E-06	8.38E-06	0	0	0	4.65E-05	0	1	1.16E-05	2.32E-05	0	0	0	0	0	0	0	0	Nucleic-acid-binding protein	nucleus [pmid 2247079]	DNA binding [pmid 2247079]
2073	2	7.84E-06	0	0	INF		ENSG00000100523:E	DDHD1			gi|45120113|ref|NP_	DDHD domain containing 1 [	872	97069	5.7	0	o	Q	36	0	0	0	0	0	0	0	0	0	0	0	0	1.87E-05	4.4E-05	2	1.57E-05	2.09E-05	0	0	0	0	0	0	0	0	DDHD domain. The DDHD		hydrolase activity; metal ion
2074	2	7.8E-06	0	0	INF		ENSG00000114416:E	FXR1			gi|61835148|ref|NP_	fragile X mental retardation-r	621	69721	6.2	0	o	Q	0	0	0	0	0	0	0	0	0	0	0	3.61E-05	0	2.63E-05	0	2	1.56E-05	1.85E-05	0	0	0	0	0	0	0	0	K homology RNA-binding	cytoplasm [pmid 7781595];	protein binding [pmid
2075	2	7.74E-06	0	0	INF		ENSG00000161905:E	ALOX15			gi|40316937|ref|NP_	arachidonate 15-lipoxygenas	662	74804	6.6	0	o	Q	25	0.01	0	3.52E-05	0	2.67E-05	0	2	1.55E-05	1.82E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PLAT domain of 12/15-	plasma membrane	arachidonate 15-
2076	2	7.65E-06	0	0	INF		ENSG00000175595:E	ERCC4			gi|4885217|ref|NP_0	excision repair cross-comple	916	104486	6.9	0	o	Q	39	0	0	0	0	1.93E-05	0	1	4.82E-06	9.64E-06	0	0	0	0	4.19E-05	1	1.05E-05	2.1E-05	0	0	0	0	0	0	0	0	ERCC4-like helicases [DNA	nucleotide-excision repair	DNA binding;
2077	2	7.61E-06	0	0	INF		ENSG00000114316:E	USP4			gi|40795665|ref|NP_	ubiquitin specific protease, p	963	108565	5.7	0	o	Q	0	0	0	2.42E-05	0	3.67E-05	0	2	1.52E-05	1.83E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A subfamily of Peptidase	lysosome [pmid 9827704];	cysteine-type endopeptidase
2078	2	7.58E-06	0	0	INF		ENSG00000158545:E	NHN1			gi|31377595|ref|NP_	zinc finger CCCH-type conta	953	106359	8.2	0	o	Q	0	0	0	0	0	3.71E-05	0	1	9.27E-06	1.85E-05	0	2.35E-05	0	0	0	1	5.89E-06	1.18E-05	0	0	0	0	0	0	0	0	AAA ATPase containing		nucleic acid binding; zinc ion
2079	2	7.54E-06	0	0	INF		ENSG00000174953:E	DHX36			gi|18497286|ref|NP_	DEAH (Asp-Glu-Ala-His) box	1008	114776	7.7	0	o	Q	32	0	0	0	0	0	0	0	0	0	0	2.23E-05	0	0	3.81E-05	2	1.51E-05	1.86E-05	0	0	0	0	0	0	0	0	Helicase superfamily c-	nucleus	ATP binding; ATP-dependent
2080	2	7.54E-06	0	0	INF		ENSG00000143442:E	POGZ			gi|46397390|ref|NP_	pogo transposable element w	1410	155343	7.4	0	o	Q	0	0	0	3.31E-05	0	0	0	1	8.27E-06	1.65E-05	0	0	0	0	2.72E-05	1	6.81E-06	1.36E-05	0	0	0	0	0	0	0	0	DDE superfamily	intracellular; nucleus	DNA binding; metal ion
2081	2	7.53E-06	0	0	INF		ENSG00000185163:E	DDX51			gi|154759257|ref|NP	DEAD (Asp-Glu-Ala-Asp) box	666	72457	8.2	0	o	Q	18	0.022	0	0	0	2.65E-05	0	1	6.63E-06	1.33E-05	0	3.37E-05	0	0	0	1	8.42E-06	1.68E-05	0	0	0	0	0	0	0	0			
2082	2	7.5E-06	0	0	INF		ENSG00000159399:E	HK2			gi|15553127|ref|NP_	hexokinase 2 [Homo sapiens	917	102380	6.1	0	o	Q	15	0.005	0	0	0	1.93E-05	0	1	4.82E-06	9.63E-06	0	4.08E-05	0	0	0	1	1.02E-05	2.04E-05	0	0	0	0	0	0	0	0	Hexokinase. Hexokinase	membrane; mitochondrial	ATP binding; hexokinase
2083	2	7.49E-06	0	0	INF		ENSG00000056097:E	ZFR			gi|34101286|ref|NP_	zinc finger RNA binding prote	1074	117012	9	0	o	Q	19	0.057	0	4.34E-05	0	1.64E-05	0	2	1.5E-05	2.05E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	U1-like zinc finger; Family	intracellular; nucleus	nucleic acid binding; zinc ion
2084	2	7.48E-06	0	0	INF		ENSG00000070366:E	SMG6			gi|115511020|ref|NP	Smg-6 homolog, nonsense m	1419	160461	7	0	o	Q	29	0.013	0	0	0	1.24E-05	0	1	3.11E-06	6.22E-06	0	4.74E-05	0	0	0	1	1.19E-05	2.37E-05	0	0	0	0	0	0	0	0			
2085	2	7.39E-06	0	0	INF		ENSG00000125976:E	RBM12			gi|23510462|ref|NP_	RNA binding motif protein 12	932	97396	8.6	0	o	Q	16	0.052	0	0	0	0	0	0	0	0	0	2.41E-05	0	3.5E-05	0	2	1.48E-05	1.76E-05	0	0	0	0	0	0	0	0	RNA recognition motif.	nucleus	nucleotide binding; protein
2086	2	7.31E-06	0	0	INF		ENSG00000124181:E	PLCG1			gi|33598946|ref|NP_	phospholipase C gamma 1 is	1290	148532	6	0	o	Q	21	0.035	0	0	0	4.11E-05	0	1	1.03E-05	2.05E-05	0	1.74E-05	0	0	0	1	4.35E-06	8.7E-06	0	0	0	0	0	0	0	0	Src homology 3 domains;		calcium ion binding;
2087	2	7.28E-06	0	0	INF		ENSG00000119596:E	YLPM1			gi|146134388|ref|NP	YLP motif containing 1 [Hom	2146	241643	6.6	0	o	Q	38	0	0	0	0	1.65E-05	0	1	4.12E-06	8.23E-06	0	4.18E-05	0	0	0	1	1.05E-05	2.09E-05	0	0	0	0	0	0	0	0			
2088	2	7.19E-06	0	0	INF		ENSG00000135090:E	TAOK3			gi|148746218|ref|NP	TAO kinase 3 [Homo sapiens	898	105406	7.3	0	o	Q	0	0	0	0	0	3.93E-05	0	1	9.84E-06	1.97E-05	0	0	0	1.82E-05	0	1	4.54E-06	9.09E-06	0	0	0	0	0	0	0	0			
2089	2	7.19E-06	0	0	INF		ENSG00000164654:E	FLJ20323			gi|109150419|ref|NP	hypothetical protein FLJ2032	875	98584	6.7	0	o	Q	22	0	0	0	0	2.02E-05	0	1	5.05E-06	1.01E-05	0	0	0	3.73E-05	0	1	9.33E-06	1.87E-05	0	0	0	0	0	0	0	0			
2090	2	7.08E-06	0	0	INF		ENSG00000124126:E	PREX1			gi|34452732|ref|NP_	PREX1 protein [Homo sapien	1659	186203	6.4	0	o	Q	40	0	0	1.41E-05	0	4.26E-05	0	2	1.42E-05	2.01E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PDZ domain, also called	cytosol [pmid 11955434];	enzyme binding; phospholipid
2091	2	6.91E-06	0	0	INF		ENSG00000080845:E	DLGAP4			gi|34335253|ref|NP_	disks large-associated protei	989	107567	7.3	0	o	Q	0	0	0	0	0	0	0	0	0	0	0	0	0	1.65E-05	3.88E-05	2	1.38E-05	1.84E-05	0	0	0	0	0	0	0	0	Guanylate-kinase-	membrane	
2092	2	6.91E-06	0	0	INF		ENSG00000167107:E	ACSF2			gi|156151445|ref|NP	acyl-CoA synthetase family m	615	68125	7.6	0	o	S	29	0.888	0	0	0	2.87E-05	0	1	7.18E-06	1.44E-05	0	0	0	2.65E-05	0	1	6.63E-06	1.33E-05	0	0	0	0	0	0	0	0			
2093	2	6.9E-06	0	0	INF		ENSG00000163516:E	ANKZF1			gi|109150435|ref|NP	ankyrin repeat and zinc finge	726	80927	8.4	0	o	Q	42	0.186	0	0	0	2.43E-05	0	1	6.08E-06	1.22E-05	0	3.09E-05	0	0	0	1	7.73E-06	1.55E-05	0	0	0	0	0	0	0	0			
2094	2	6.83E-06	0	0	INF		ENSG00000049323:E	LTBP1			gi|46249412|ref|NP_	latent transforming growth fa	1396	152978	5.1	0	o	S	21	0.987	0	1.67E-05	0	3.8E-05	0	2	1.37E-05	1.8E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Plasmodium ookinete	extracellular matrix (sensu	calcium ion binding; growth
2095	2	6.78E-06	0	0	INF		ENSG00000187091:E	PLCD1			gi|90265805|ref|NP_	phospholipase C, delta 1 [Ho	756	85665	6.7	0	o	Q	22	0	0	3.09E-05	0	2.34E-05	0	2	1.36E-05	1.59E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Phospholipase C (PLC)		calcium ion binding;
2096	2	6.65E-06	0	0	INF		ENSG00000140694:E	PARN			gi|4505611|ref|NP_0	poly(A)-specific ribonuclease	639	73451	6.2	0	o	Q	0	0	0	0	0	2.76E-05	0	1	6.91E-06	1.38E-05	0	0	0	2.55E-05	0	1	6.38E-06	1.28E-05	0	0	0	0	0	0	0	0	R3H domain of Poly(A)-	cytoplasm [pmid 9736620];	exonuclease activity;
2097	2	6.57E-06	0	0	INF		ENSG00000140525:E	FANCI			gi|82830440|ref|NP_	Fanconi anemia, complemen	1268	142569	6.8	0	o	Q	15	0	0	0	0	1.39E-05	0	1	3.48E-06	6.97E-06	0	0	0	3.86E-05	0	1	9.65E-06	1.93E-05	0	0	0	0	0	0	0	0		integral to membrane;	
2098	2	6.53E-06	0	0	INF		ENSG00000213983:E	AP1G2			gi|18104996|ref|NP_	adaptor-related protein comp	785	87117	6.6	0	o	Q	18	0	0	2.97E-05	0	2.25E-05	0	2	1.31E-05	1.54E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Adaptin C-terminal domain.	AP-1 adaptor complex [pmid	protein binding
2099	2	6.5E-06	0	0	INF		ENSG00000108094:E	CUL2			gi|19482174|ref|NP_	cullin 2 [Homo sapiens]	745	86983	6.9	0	o	Q	28	0	0	0	0	0	0	0	0	0	0	3.01E-05	0	2.19E-05	0	2	1.3E-05	1.54E-05	0	0	0	0	0	0	0	0	Cullin, a subunit of E3		protein binding [pmid
2100	2	6.5E-06	0	0	INF		ENSG00000122257:E	RBBP6			gi|33620716|ref|NP_	retinoblastoma-binding prote	1758	197286	9.6	0	o	Q	28	0	0	0	0	3.01E-05	0	1	7.54E-06	1.51E-05	0	0	0	0	2.18E-05	1	5.46E-06	1.09E-05	0	0	0	0	0	0	0	0	RING-finger (Really	nucleus; ubiquitin ligase	metal ion binding; nucleic
2101	2	6.44E-06	0	0	INF		ENSG00000104880:E	LOC100134192			gi|169213714|ref|XP	PREDICTED: similar to hCG	796	89396	6.7	0	o	Q	40	0	0	2.93E-05	0	2.22E-05	0	2	1.29E-05	1.51E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2102	2	6.43E-06	0	0	INF		ENSG00000166266:E	CUL5			gi|40254446|ref|NP_	Vasopressin-activated calciu	780	90955	8	0	o	Q	0	0	0	0	0	2.26E-05	0	1	5.66E-06	1.13E-05	0	2.88E-05	0	0	0	1	7.19E-06	1.44E-05	0	0	0	0	0	0	0	0	Cullin, a subunit of E3		calcium channel activity
2103	2	6.37E-06	0	0	INF		ENSG00000133056:E	PIK3C2B			gi|15451926|ref|NP_	phosphoinositide-3-kinase, c	1634	184825	7.2	0	o	Q	28	0	0	0	0	0	0	0	0	0	0	2.75E-05	0	0	2.35E-05	2	1.27E-05	1.48E-05	0	0	0	0	0	0	0	0	Phosphoinositide 3-kinase	cytosol; microsome; nucleus;	inositol or
2104	2	6.27E-06	0	0	INF		ENSG00000170266:E	GLB1			gi|119372308|ref|NP	galactosidase, beta 1 isoform	677	76075	6.6	0	o	S	24	1	0	0	0	2.61E-05	0	1	6.52E-06	1.3E-05	0	0	0	2.41E-05	0	1	6.03E-06	1.21E-05	0	0	0	0	0	0	0	0			
2105	2	6.26E-06	0	0	INF		ENSG00000101191:E	DIDO1			gi|71044479|ref|NP_	death inducer-obliterator 1 is	2240	243840	7.9	0	o	Q	0	0	0	0	0	1.58E-05	0	1	3.94E-06	7.89E-06	0	0	0	0	3.43E-05	1	8.57E-06	1.71E-05	0	0	0	0	0	0	0	0	PHD-finger. PHD folds into	nucleus	metal ion binding; protein
2106	2	6.23E-06	0	0	INF		ENSG00000159842:E	ABR			gi|38679954|ref|NP_	active breakpoint cluster regi	822	93707	6.4	0	o	Q	0	0	0	2.84E-05	0	2.15E-05	0	2	1.25E-05	1.47E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	RhoGAP_Bcr: RhoGAP	intracellular	GTPase activator activity
2107	2	6.19E-06	0	0	INF		ENSG00000058673:E	ZC3H11A			gi|114842410|ref|NP	zinc finger CCCH-type conta	810	89131	8.4	0	o	Q	20	0.001	0	0	0	2.18E-05	0	1	5.45E-06	1.09E-05	0	2.77E-05	0	0	0	1	6.92E-06	1.38E-05	0	0	0	0	0	0	0	0			
2108	2	6.1E-06	0	0	INF		ENSG00000185787:E	MORF4L1			gi|45643135|ref|NP_	MORF-related gene 15 isofo	362	41474	9.3	0	o	Q	31	0	0	0	0	4.88E-05	0.001125	2	1.22E-05	2.44E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MRG. This family consists	nucleus	
2109	2	6.08E-06	0	0	INF		ENSG00000169180:E	XPO6			gi|46049063|ref|NP_	exportin 6 [Homo sapiens]	1125	128883	6.4	0	o	Q	25	0	0	0	0	0	0	0	0	0	0	0	0	1.45E-05	3.41E-05	2	1.22E-05	1.62E-05	0	0	0	0	0	0	0	0	Exportin 1-like protein. The	cytoplasm [pmid 14592989];	protein binding [pmid
2110	2	6.01E-06	0	0	INF		ENSG00000178921:E	PFAS			gi|31657129|ref|NP_	phosphoribosylformylglycinar	1338	144734	5.8	0	o	Q	17	0.001	0	3.49E-05	0	1.32E-05	0	2	1.2E-05	1.65E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Formylglycinamide	cytoplasm	ATP binding; ligase activity;
2111	2	5.99E-06	0	0	INF		ENSG00000143093:E	FAM40A			gi|56790935|ref|NP_	hypothetical protein LOC853	837	95576	6.3	0	o	Q	19	0	0	0	0	2.11E-05	0	1	5.28E-06	1.06E-05	0	2.68E-05	0	0	0	1	6.7E-06	1.34E-05	0	0	0	0	0	0	0	0	N1221-like protein. The		
2112	2	5.95E-06	0	0	INF		ENSG00000060069:E	CTDP1			gi|67188445|ref|NP_	CTD (carboxy-terminal doma	961	104399	5.3	0	o	Q	59	0.307	0	2.43E-05	0	0	0	1	6.07E-06	1.21E-05	0	2.33E-05	0	0	0	1	5.84E-06	1.17E-05	0	0	0	0	0	0	0	0	FCP1, C-terminal. The C-	intracellular; nucleus	DNA-directed RNA
2113	2	5.95E-06	0	0	INF		ENSG00000018699:E	TTC27			gi|42476022|ref|NP_	tetratricopeptide repeat doma	843	96632	5.6	0	o	Q	17	0.013	0	0	0	2.1E-05	0	1	5.24E-06	1.05E-05	0	2.66E-05	0	0	0	1	6.65E-06	1.33E-05	0	0	0	0	0	0	0	0	Tetratricopeptide repeat		binding
2114	2	5.74E-06	0	0	INF		ENSG00000104133:E	SPG11			gi|93204888|ref|NP_	spastic paraplegia 11 (autos	2443	278866	6	0	o	S	40	0.748	0	0	0	1.45E-05	0	1	3.62E-06	7.23E-06	0	0	0	0	3.14E-05	1	7.86E-06	1.57E-05	0	0	0	0	0	0	0	0			catalytic activity; ferric iron
2115	2	5.67E-06	0	0	INF		ENSG00000154310:E	TNIK			gi|55741807|ref|NP_	TRAF2 and NCK interacting	1360	154943	7.2	0	o	Q	38	0	0	1.72E-05	0	0	0	1	4.29E-06	8.58E-06	0	0	0	0	2.82E-05	1	7.06E-06	1.41E-05	0	0	0	0	0	0	0	0	Serine/Threonine protein		ATP binding; nucleotide
2116	2	5.63E-06	0	0	INF		ENSG00000118960:E	HS1BP3			gi|68800430|ref|NP_	HCLS1 binding protein 3 [Ho	392	42780	5	0	o	Q	19	0.004	0	0	0	4.51E-05	0.001039	2	1.13E-05	2.25E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PX domain. PX domains		phosphoinositide binding;
2117	2	5.53E-06	0	0	INF		ENSG00000175265:N	LOC390561			gi|169208144|ref|XP	PREDICTED: similar to hect	1394	149583	8.6	0	o	Q	22	0.001	0	1.67E-05	0	0	0	1	4.18E-06	8.37E-06	0	0	0	0	2.75E-05	1	6.88E-06	1.38E-05	0	0	0	0	0	0	0	0			
2118	2	5.25E-06	0	0	INF		ENSG00000140553:E	UNC45A			gi|29725607|ref|NP_	smooth muscle cell associate	944	103077	6.1	0	o	Q	50	0	0	2.47E-05	0	0	0	1	6.18E-06	1.24E-05	0	0	0	1.73E-05	0	1	4.32E-06	8.64E-06	0	0	0	0	0	0	0	0	Tetratricopeptide repeat		binding
2119	2	5.17E-06	0	0	INF		ENSG00000134900:E	TPP2			gi|4507657|ref|NP_0	tripeptidyl peptidase II [Homo	1249	138449	6.4	0	o	Q	24	0	0	0	0	2.83E-05	0	1	7.07E-06	1.41E-05	0	0	0	1.31E-05	0	1	3.27E-06	6.53E-06	0	0	0	0	0	0	0	0	Subtilase family. Subtilases	cytoplasm [pmid 9974389]	aminopeptidase activity; D-
2120	2	5.15E-06	0	0	INF		ENSG00000168071:E	CCDC88B			gi|88196790|ref|NP_	coiled-coil domain containing	1476	164764	5.1	0	o	S	32	0.732	0	0	0	0	0	0	0	0	0	1.52E-05	0	0	2.6E-05	2	1.03E-05	1.27E-05	0	0	0	0	0	0	0	0	Chromosome segregation		protein binding [pmid
2121	2	5.12E-06	0	0	INF		ENSG00000149091:E	DGKZ			gi|157688564|ref|NP	diacylglycerol kinase, zeta 1(	1117	124128	9	0	o	Q	65	0	0	2.09E-05	0	0	0	1	5.22E-06	1.04E-05	0	2.01E-05	0	0	0	1	5.02E-06	1E-05	0	0	0	0	0	0	0	0			
2122	2	5.1E-06	0	0	INF		ENSG00000114127:E	XRN1			gi|110624787|ref|NP	5'-3' exoribonuclease 1 isofor	1693	192713	7.3	0	o	Q	19	0	0	2.76E-05	0	0	0	1	6.89E-06	1.38E-05	0	1.33E-05	0	0	0	1	3.31E-06	6.63E-06	0	0	0	0	0	0	0	0			
2123	2	5.08E-06	0	0	INF		ENSG00000151503:E	NCAPD3			gi|45356151|ref|NP_	non-SMC condensin II compl	1498	168890	7.5	0	o	Q	22	0.007	0	0	0	0	0	0	0	0	0	1.5E-05	0	0	2.56E-05	2	1.02E-05	1.25E-05	0	0	0	0	0	0	0	0	Adaptin N terminal region.		binding
2124	2	5.06E-06	0	0	INF		ENSG00000080345:E	RIF1			gi|56676335|ref|NP_	RAP1 interacting factor 1 [Ho	2472	274464	5.5	0	o	Q	25	0.173	0	9.44E-06	0	0	0	1	2.36E-06	4.72E-06	0	0	0	0	3.11E-05	1	7.76E-06	1.55E-05	0	0	0	0	0	0	0	0		chromosome; chromosome,	binding
2125	2	4.96E-06	0	0	INF		ENSG00000166716:E	ZNF592			gi|108860697|ref|NP	zinc finger protein 592 [Homo	1267	137528	7.8	0	o	Q	27	0	0	0	0	1.39E-05	0	1	3.49E-06	6.97E-06	0	0	0	2.58E-05	0	1	6.44E-06	1.29E-05	0	0	0	0	0	0	0	0			
2126	2	4.96E-06	0	0	INF		ENSG00000104774:E	MAN2B1			gi|51873064|ref|NP_	mannosidase, alpha, class 2I	1011	113744	7.3	0	o	S	50	0.998	0	0	0	1.75E-05	0	1	4.37E-06	8.74E-06	0	2.22E-05	0	0	0	1	5.55E-06	1.11E-05	0	0	0	0	0	0	0	0	Alpha mannosidase, middle	lysosome	alpha-mannosidase activity
2127	2	4.82E-06	0	0	INF		ENSG00000198554:E	WDHD1			gi|56550086|ref|NP_	WD repeat and HMG-box DN	1006	112704	5.7	0	o	Q	32	0	0	0	0	0	0	0	0	0	0	2.23E-05	0	1.62E-05	0	2	9.63E-06	1.14E-05	0	0	0	0	0	0	0	0	WD40 domain, found in a	cytoplasm [pmid 9175701];	DNA binding [pmid 9175701]
2128	2	4.74E-06	0	0	INF		ENSG00000064607:E	SFRS14			gi|62859987|ref|NP_	splicing factor, arginine/serin	1082	120237	7.3	0	o	Q	0	0	0	2.16E-05	0	1.63E-05	0	2	9.47E-06	1.11E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	glycine rich nucleic binding	intracellular; nucleus	RNA binding
2129	2	4.7E-06	0	0	INF		ENSG00000179832:N	KIAA1833			gi|113420243|ref|XP	PREDICTED: hypothetical pr	1218	134310	6.9	0	o	Q	20	0.211	0	1.91E-05	0	0	0	1	4.79E-06	9.57E-06	0	1.84E-05	0	0	0	1	4.6E-06	9.21E-06	0	0	0	0	0	0	0	0			
2130	2	4.52E-06	0	0	INF		ENSG00000092148:E	HECTD1			gi|118498337|ref|NP	HECT domain containing 1 [H	2610	289383	5.4	0	o	Q	19	0	0	0	0	6.77E-06	0	1	1.69E-06	3.38E-06	0	0	0	0	2.94E-05	1	7.35E-06	1.47E-05	0	0	0	0	0	0	0	0			
2131	2	4.47E-06	0	0	INF		ENSG00000156304:E	SFRS15			gi|40789229|ref|NP_	splicing factor, arginine/serin	1147	125869	9.6	0	o	Q	25	0	0	2.03E-05	0	1.54E-05	0	2	8.93E-06	1.05E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	CID (CTD-Interacting	nucleus	nucleotide binding; RNA
2132	2	4.43E-06	0	0	INF		ENSG00000175931:E	UBE2O			gi|33636750|ref|NP_	ubiquitin-conjugating enzyme	1292	141383	5.1	0	o	Q	40	0.049	0	1.81E-05	0	0	0	1	4.51E-06	9.03E-06	0	1.74E-05	0	0	0	1	4.34E-06	8.68E-06	0	0	0	0	0	0	0	0	Ubiquitin-conjugating		ubiquitin-protein ligase
2133	2	4.41E-06	0	0	INF		ENSG00000173120:E	FBXL11			gi|16306580|ref|NP_	F-box and leucine-rich repea	1162	132793	7.6	0	o	Q	0	0	0	2.01E-05	0	1.52E-05	0	2	8.82E-06	1.04E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	CXXC zinc finger. This	nucleus	DNA binding; iron ion binding
2134	2	4.39E-06	0	0	INF		ENSG00000146918:E	NCAPG2			gi|116812586|ref|NP	leucine zipper protein 5 [Hom	1143	130960	6.9	0	o	Q	18	0	0	0	0	1.55E-05	0	1	3.86E-06	7.73E-06	0	1.96E-05	0	0	0	1	4.91E-06	9.81E-06	0	0	0	0	0	0	0	0			
2135	2	4.23E-06	0	0	INF		ENSG00000095564:E	BTAF1			gi|27477070|ref|NP_	BTAF1 RNA polymerase II, E	1849	206886	6.5	0	o	Q	27	0.049	0	0	0	9.55E-06	0	1	2.39E-06	4.78E-06	0	2.43E-05	0	0	0	1	6.07E-06	1.21E-05	0	0	0	0	0	0	0	0	Helicase superfamily c-	nucleus	ATP binding; helicase
2136	2	4.16E-06	0	0	INF		ENSG00000197442:E	MAP3K5			gi|5174547|ref|NP_0	mitogen-activated protein kin	1374	154536	5.8	0	o	Q	23	0.002	0	1.7E-05	0	0	0	1	4.24E-06	8.49E-06	0	1.63E-05	0	0	0	1	4.08E-06	8.16E-06	0	0	0	0	0	0	0	0	Serine/Threonine protein		ATP binding; caspase
2137	2	4.16E-06	0	0	INF		ENSG00000141556:E	TBCD			gi|41350333|ref|NP_	beta-tubulin cofactor D [Hom	1192	132600	6.2	0	o	Q	32	0	0	1.96E-05	0	0	0	1	4.89E-06	9.78E-06	0	0	0	1.37E-05	0	1	3.42E-06	6.85E-06	0	0	0	0	0	0	0	0	Beta-tubulin folding cofactor		binding
2138	2	4.15E-06	0	0	INF		ENSG00000170776:N	AKAP13			gi|21493029|ref|NP_	A-kinase anchor protein 13 is	2813	307550	5.2	0	o	Q	27	0.01	0	3.32E-05	0	0	0.000145	2	8.29E-06	1.66E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Pleckstrin homology (PH)	intracellular; membrane	cAMP-dependent protein
2139	2	4.08E-06	0	0	INF		ENSG00000150347:E	ARID5B			gi|74136549|ref|NP_	AT rich interactive domain 5E	1188	132375	8.7	0	o	Q	18	0.001	0	0	0	0	0	0	0	0	0	1.89E-05	0	1.37E-05	0	2	8.16E-06	9.65E-06	0	0	0	0	0	0	0	0	BAH, or Bromo Adjacent	intracellular; nucleus [pmid	DNA binding [pmid
2140	2	4.05E-06	0	0	INF		ENSG00000165659:E	DACH1			gi|18375609|ref|NP_	dachshund homolog 1 isoforn	504	51891	8.8	0	o	Q	24	0.097	0	0	0	0	0	0	0	0	0	0	0.001387	3.24E-05	0	2	8.1E-06	1.62E-05	0	0	0	0	0	0	0	0	SKI/SNO/DAC family. This	nucleus	DNA binding; protein binding
2141	2	3.94E-06	0	0	INF		ENSG00000163539:E	CLASP2			gi|57863301|ref|NP_	CLIP-associating protein 2 [H	1506	164886	8.2	0	o	Q	40	0	0	2.06E-05	0	0	0	1	5.16E-06	1.03E-05	0	0	0	1.08E-05	0	1	2.71E-06	5.42E-06	0	0	0	0	0	0	0	0	HEAT repeat. The HEAT	cytoplasmic microtubule [pmid	binding; microtubule plus-end
2142	2	3.9E-06	0	0	INF		ENSG00000157654:E	PALM2-AKAP2			gi|22325356|ref|NP_	PALM2-AKAP2 protein isofor	1090	120630	5	0	o	Q	0	0	0	0	0	1.62E-05	0	1	4.05E-06	8.1E-06	0	0	0	1.5E-05	0	1	3.74E-06	7.49E-06	0	0	0	0	0	0	0	0			
2143	2	3.88E-06	0	0	INF		ENSG00000133858:E	CCDC131			gi|87116683|ref|NP_	proline/serine-rich coiled-coil	1989	226354	8.1	0	o	Q	17	0	0	1.17E-05	0	0	0	1	2.93E-06	5.86E-06	0	0	0	0	1.93E-05	1	4.82E-06	9.65E-06	0	0	0	0	0	0	0	0	Tetratricopeptide repeat	intracellular	binding
2144	2	3.61E-06	0	0	INF		ENSG00000177409:E	SAMD9L			gi|51339291|ref|NP_	sterile alpha motif domain co	1584	184531	8	0	o	Q	0	0	0	1.47E-05	0	0	0	1	3.68E-06	7.36E-06	0	1.42E-05	0	0	0	1	3.54E-06	7.08E-06	0	0	0	0	0	0	0	0			
2145	2	3.57E-06	0	0	INF		ENSG00000158987:E	FNIP1			gi|54633319|ref|NP_	PDZ domain-containing guar	1601	179450	6.4	0	o	Q	0	0	0	1.46E-05	0	0	0	1	3.64E-06	7.28E-06	0	1.4E-05	0	0	0	1	3.5E-06	7.01E-06	0	0	0	0	0	0	0	0	effector domain of the CAP	intracellular; plasma	GTP-dependent protein
2146	2	3.42E-06	0	0	INF		ENSG00000198837:E	DENND4B			gi|148922920|ref|NP	DENN/MADD domain contai	1496	163846	7.2	0	o	Q	23	0.081	0	1.56E-05	0	1.18E-05	0	2	6.85E-06	8.06E-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2147	2	3.41E-06	0	0	INF		ENSG00000204820:N	C12orf51			gi|157885806|ref|NP	chromosome 12 open readin	3996	439348	6.2	0	o	Q	18	0.012	0	0	0	1.77E-05	0	1	4.42E-06	8.84E-06	0	0	0	0	9.61E-06	1	2.4E-06	4.8E-06	0	0	0	0	0	0	0	0			
2148	2	3.11E-06	0	0	INF		ENSG00000064932:E	SBNO2			gi|154355002|ref|NP	strawberry notch homolog 2	1366	150274	6.5	0	o	Q	33	0	0	0	0	1.29E-05	0	1	3.23E-06	6.47E-06	0	0	0	1.19E-05	0	1	2.99E-06	5.97E-06	0	0	0	0	0	0	0	0			
2149	2	3.07E-06	0	0	INF		ENSG00000198399:E	ITSN2			gi|22325381|ref|NP_	intersectin 2 isoform 3 [Homo	1669	190364	8.2	0	o	Q	17	0	0	1.4E-05	0	1.06E-05	0	2	6.14E-06	7.22E-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Src homology 3 domains;	intracellular	calcium ion binding; protein
2150	2	2.88E-06	0	0	INF		ENSG00000107290:E	SETX			gi|113722133|ref|NP	senataxin [Homo sapiens]	2677	302879	7.2	0	o	Q	15	0.008	0	8.71E-06	0	0	0	1	2.18E-06	4.36E-06	0	0	0	0	1.43E-05	1	3.58E-06	7.17E-06	0	0	0	0	0	0	0	0			
2151	2	2.76E-06	0	0	INF		ENSG00000197535:E	MYO5A			gi|115511014|ref|NP	myosin VA (heavy polypeptic	1855	215403	8.5	0	o	Q	17	0	0	1.26E-05	0	9.52E-06	0	2	5.52E-06	6.5E-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2152	2	2.68E-06	0	0	INF		ENSG00000127616:E	SMARCA4			gi|21071056|ref|NP_	SWI/SNF-related matrix-ass	1647	184644	7.9	0	o	Q	40	0.002	0	0	0	2.15E-05	0	1	5.36E-06	1.07E-05	0	0	0.000425	0	0	1	0	0	0	0	0	0	0	0	0	0	Helicase superfamily c-	nucleoplasm [pmid 8208605];	ATP binding; DNA binding;
2153	2	2.65E-06	0	0	INF		ENSG00000125107:E	CNOT1			gi|42716275|ref|NP_	CCR4-NOT transcription com	2376	266937	7.1	0	o	Q	17	0.009	0	0	0	7.43E-06	0	1	1.86E-06	3.72E-06	0	0	0	1.37E-05	0	1	3.43E-06	6.87E-06	0	0	0	0	0	0	0	0	CCR4-Not complex		
2154	2	2.58E-06	0	0	INF		ENSG00000104517:E	LOC730429			gi|113420453|ref|XP	PREDICTED: similar to E3 u	2796	309192	6.1	0	o	Q	18	0	0	0	0	1.26E-05	0	1	3.16E-06	6.32E-06	0	8.02E-06	0	0	0	1	2.01E-06	4.01E-06	0	0	0	0	0	0	0	0	C-terminal domain of		
2155	2	2.3E-06	0	0	INF		ENSG00000204469:E	BAT2			gi|149158690|ref|NP	HLA-B associated transcript-	2157	228861	9.5	0	o	Q	0	0	0	1.08E-05	0	0	0	1	2.7E-06	5.41E-06	0	0	0	7.57E-06	0	1	1.89E-06	3.78E-06	0	0	0	0	0	0	0	0			
2156	2	2.13E-06	0	0	INF		ENSG00000005339:E	CREBBP			gi|119943102|ref|NP	CREB binding protein isoform	2404	260990	8.5	0	o	Q	0	0	0	9.7E-06	0	7.35E-06	0	2	4.26E-06	5.01E-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			

rk	NEs detected # out of 10 runs	NEs dNSAF_AVG	MMs detected # out of 8 runs	MMs dNSAF_AVG	NEs:MMs	Detected in Mitochondria	ORTHO_GROUP	GENE_NAME	NET_NAME	Location & Gene Expression Data	Locus	Description	Length	MW	pI	PredHel	TMHMM_Topology	SIGNALP_HMM_TYPE (S= signal; A= Anchor; Q= none)	SIGNALP_HMM_POS	SIGNALP_HMM_SPROB	RESTING LYMPHOCYTES NEs								PHA-TREATED LYMPHOCYTES NEs								MMs								Region_Note	GO_Component	GO_Function
																					HsNaOH-NE_NT_lymphocytes_CNBrTi_1_dNSAF	HsNaOH-NE_NT_lymphocytes_Ti_1_dNSAF	HsNaOH-NE_NT_lymphocytes_PK_1_dNSAF	HsSD-NE_NT_lymphocytes_Ti_1_dNSAF	HsSD-NE_NT_lymphocytes_PK_1_dNSAF	NT-bNEs Detected # Out of 5	NT-bNEs dNSAF AVG	NT-bNEs dNSAF SDV	HsNaOH-NE_PHA_lymphocytes_CNBrTi_1_dNSAF	HsNaOH-NE_PHA_lymphocytes_Ti_1_dNSAF	HsNaOH-NE_PHA_lymphocytes_PK_1_dNSAF	HsSD-NE_PHA_lymphocytes_Ti_1_dNSAF	HsSD-NE_PHA_lymphocytes_PK_1_dNSAF	PHA-bNEs Detected # Out of 5	PHA-bNEs dNSAF AVG	PHA-bNEs dNSAF SDV	MmNaOH-MM_liver_CNBrTi_1_dNSAF	MmNaOH-MM_liver_CNBrTi_2_dNSAF	RnNaOH-MM_liver_Ti_1_dNSAF	RnNaOH-MM_liver_Ti_2_dNSAF	RnNaOH-MM_liver_Ti_3_dNSAF	RnNaOH-MM_liver_Ti_4_dNSAF	RnNaOH-MM_liver_PK_1_dNSAF	RnNaOH-MM_liver_PK_2_dNSAF			
2157	2	2.11E-06	0	0	INF		ENSG00000137337:E	MDC1			gi|132626688|ref|NP	mediator of DNA damage ch	2089	226664	5.5	0	o	Q	0	0	0	0	0	1.69E-05	0.000195	2	4.23E-06	8.46E-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2158	2	1.8E-06	0	0	INF		ENSG00000064999:E	ANKS1A			gi|140161500|ref|NP	ankyrin repeat and sterile alp	1134	123108	6.4	0	o	Q	42	0	0	0	0	0	0.000359	1	0	0	0	0	0	1.44E-05	0	1	3.6E-06	7.2E-06	0	0	0	0	0	0	0	0			
2159	2	1.66E-06	0	0	INF		ENSG00000172869:E	DMXL1			gi|148528998|ref|NP	Dmx-like 1 [Homo sapiens]	3027	337839	6.3	0	o	Q	18	0.004	0	0	0	5.84E-06	0	1	1.46E-06	2.92E-06	0	7.41E-06	0	0	0	1	1.85E-06	3.71E-06	0	0	0	0	0	0	0	0			
2160	2	1.37E-06	0	0	INF		ENSG00000065526:E	SPEN			gi|14790190|ref|NP_	spen homolog, transcriptiona	3664	402251	7.6	0	o	Q	0	0	0	0	0	4.82E-06	0	1	1.21E-06	2.41E-06	0	6.12E-06	0	0	0	1	1.53E-06	3.06E-06	0	0	0	0	0	0	0	0	SPOC domain. The SPOC	nucleus	DNA binding; nucleic acid
2161	2	1.31E-06	0	0	INF		ENSG00000127914:E	AKAP9			gi|22538387|ref|NP_	A-kinase anchor protein 9 isc	3907	452990	5	0	o	Q	0	0	0	5.97E-06	0	4.52E-06	0	2	2.62E-06	3.09E-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	RecF/RecN/SMC N	centrosome [pmid 10202149];	receptor binding [pmid
2162	2	1.17E-06	0	0	INF		ENSG00000168477:E	TNXB			gi|67782336|ref|NP_	tenascin XB isoform 1 [Homo	4289	464330	5.3	0	o	S	24	1	0	0	0	4.12E-06	0	1	1.03E-06	2.06E-06	0	5.23E-06	0	0	0	1	1.31E-06	2.62E-06	0	0	0	0	0	0	0	0	Fibronectin type 3 domain;	extracellular matrix (sensu	extracellular matrix structural
2163	2	1.1E-06	0	0	INF		ENSG00000072121:E	ZFYVE26			gi|38202205|ref|NP_	zinc finger, FYVE domain co	2539	284601	6.4	0	o	Q	35	0	0	0	0	0	0.00016	1	0	0	0	8.84E-06	0	0	0	1	2.21E-06	4.42E-06	0	0	0	0	0	0	0	0	FYVE domain; Zinc-binding		zinc ion binding
2164	2	0	0	0	INF		ENSG00000152767:E	FARP1			gi|5031633|ref|NP_0	FERM, RhoGEF, and pleckst	1045	118633	8.2	0	o	Q	0	0	0	0	0	0	0.00039	1	0	0	0	0	0.000669	0	0	1	0	0	0	0	0	0	0	0	0	0	Pleckstrin homology (PH)	cytoplasm; cytoskeleton [pmid	binding; cytoskeletal protein
2165	2	0	0	0	INF		ENSG00000157766:E	ACAN			gi|126090883|ref|NP	aggrecan isoform 1 precurso	2317	239432	4.1	0	o	S	17	0.998	0	0	0	0	0.000176	1	0	0	0	0	0.000302	0	0	1	0	0	0	0	0	0	0	0	0	0			
2166	1	0.000891	0	0	INF		ENSG00000127922:N	SHFM1			gi|5453640|ref|NP_0	candidate for split hand/foot	70	8278	4	0	o	Q	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.007129	1	0.001782	0.003565	0	0	0	0	0	0	0	0		cytosol; integrator complex	peptidase activity [pmid
2167	1	0.000881	0	0	INF		ENSG00000132485:E	ZRANB2			gi|42741682|ref|NP_	zinc finger protein 265 isofor	320	36318	9.8	0	o	Q	0	0	0	0	0.007045	0	0	1	0.001761	0.003523	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Zinc finger domain; Zinc	intracellular; nucleus [pmid	metal ion binding; RNA
2168	1	0.000854	0	0	INF		ENSG00000182899:E	RPL35A			gi|16117791|ref|NP_	ribosomal protein L35a [Hom	110	12538	11.1	0	o	Q	18	0.003	0	0	0.006832	0	0	1	0.001708	0.003416	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Ribosomal protein L35Ae;	cytosolic large ribosomal	structural constituent of
2169	1	0.000713	0	0	INF		ENSG00000204983:E	LOC100134294			gi|169217813|ref|XP	PREDICTED: hypothetical pr	247	26539	6.5	0	o	S	16	0.997	0	0	0.005705	0	0	1	0.001426	0.002852	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2170	1	0.000425	0	0	INF		ENSG00000002834:E	LASP1			gi|5453710|ref|NP_0	LIM and SH3 protein 1 [Hom	261	29717	7	0	o	Q	21	0	0	0	0	0	0	0	0	0	0.003401	0	0	0	0	1	0.00085	0.001701	0	0	0	0	0	0	0	0	Src homology 3 domains;	cortical actin cytoskeleton;	actin binding; ion transporter
2171	1	0.0004	0	0	INF		ENSG00000175768:E	TOMM5			gi|49169828|ref|NP_	hypothetical protein LOC401	51	6035	9.7	0	o	Q	43	0	0	0.003201	0	0	0	1	0.0008	0.001601	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2172	1	0.000226	0	0	INF		ENSG00000102898:E	NUTF2			gi|5031985|ref|NP_0	nuclear transport factor 2 [Hc	127	14478	5.4	0	o	Q	0	0	0	0	0	0.001808	0	1	0.000452	0.000904	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Nuclear transport factor 2	intracellular	protein binding [pmid
2173	1	0.000188	0	0	INF		ENSG00000129455:E	KLK9			gi|29366812|ref|NP_	kallikrein-related peptidase 9	250	27513	7.4	0	o	S	20	1	0	0	0.001503	0	0	1	0.000376	0.000752	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Trypsin-like serine	extracellular region	peptidase activity; serine-
2174	1	0.000184	0	0	INF		ENSG00000173674:E	EIF1AY			gi|33356163|ref|NP_	eukaryotic translation initiatio	144	16442	5.2	0	o	Q	0	0	0	0	0	0	0	0	0	0	0	0	0	0.001473	0	1	0.000368	0.000737	0	0	0	0	0	0	0	0	eukaryotic translation		protein binding [pmid
2175	1	0.000183	0	0	INF		ENSG00000110025:E	ARL2			gi|148612885|ref|NP	ADP-ribosylation factor-like 2	184	20878	6.4	0	o	Q	28	0.001	0	0	0	0	0	0	0	0	0	0	0	0	0.00146	1	0.000365	0.00073	0	0	0	0	0	0	0	0			
2176	1	0.000173	0	0	INF		ENSG00000160075:E	SSU72			gi|7661832|ref|NP_0	Ssu72 RNA polymerase II CT	194	22574	5.3	0	o	Q	23	0.022	0	0	0	0	0	0	0	0	0	0	0	0	0.001385	1	0.000346	0.000693	0	0	0	0	0	0	0	0	Ssu72-like protein. The		
2177	1	0.000173	0	0	INF		ENSG00000163209:E	SPRR3			gi|148229144|ref|NP	small proline-rich protein 3 [H	169	18154	8.6	0	o	Q	0	0	0	0.00138	0	0	0	1	0.000345	0.00069	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2178	1	0.000159	0	0	INF		ENSG00000213145:E	CRIP1			gi|4503047|ref|NP_0	cysteine-rich protein 1 (intest	77	8533	8.8	0	i	Q	22	0	0	0	0	0	0	0	0	0	0	0	0	0.001272	0	1	0.000318	0.000636	0	0	0	0	0	0	0	0	LIM domain. This family	cytoplasm [pmid 9126610]	metal ion binding; zinc ion
2179	1	0.000158	0	0	INF		ENSG00000106355:N	LSM5			gi|6912488|ref|NP_0	LSM5 homolog, U6 small nuc	91	9937	4.5	0	o	Q	24	0.005	0	0	0	0	0	0	0	0	0	0	0	0	0.001266	1	0.000316	0.000633	0	0	0	0	0	0	0	0	The eukaryotic Sm and Sm-	nucleus [pmid 10369684];	protein binding [pmid
2180	1	0.00015	0	0	INF		ENSG00000154124:E	FAM105B			gi|115334675|ref|NP	hypothetical protein LOC902	352	40263	5.5	0	o	Q	18	0.008	0	0	0	0	0	0	0	0	0	0	0	0	0.0012	1	0.0003	0.0006	0	0	0	0	0	0	0	0			
2181	1	0.000147	0	0	INF		ENSG00000160213:E	CSTB			gi|4503117|ref|NP_0	cystatin B [Homo sapiens]	98	11140	7.6	0	o	Q	17	0.009	0	0	0	0	0	0	0	0	0	0	0	0	0.001175	1	0.000294	0.000588	0	0	0	0	0	0	0	0	Cystatin-like domain;	intracellular; nucleus	cysteine protease inhibitor
2182	1	0.000135	1	1.64E-05	8.249734		ENSG00000106682:E	EIF4H			gi|11559923|ref|NP_	eukaryotic translation initiatio	248	27385	7.2	0	o	Q	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0.001084	1	0.000271	0.000542	0	0	0	0	0	0	0.000131	0	RNA recognition motif;	eukaryotic translation	nucleic acid binding;
2183	1	0.000131	0	0	INF		ENSG00000167996:E	FTH1			gi|56682959|ref|NP_	ferritin, heavy polypeptide 1 [	183	21226	5.6	0	o	Q	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.001049	1	0.000262	0.000524	0	0	0	0	0	0	0	0	Eukaryotic Ferritin	ferritin complex [pmid	binding; ferric iron binding;
2184	1	0.000126	0	0	INF		ENSG00000158526:E	TSR2			gi|24308388|ref|NP_	TSR2, 20S rRNA accumulati	191	20894	4.4	0	o	Q	28	0.399	0	0	0	0	0	0	0	0	0	0	0	0	0.001005	1	0.000251	0.000502	0	0	0	0	0	0	0	0			
2185	1	0.000124	0	0	INF		ENSG00000100351:E	GRAP2			gi|4758476|ref|NP_0	GRB2-related adaptor protei	330	37909	7	0	o	Q	14	0	0	0	0	0	0	0	0	0	0	0	0	0.000989	0	1	0.000247	0.000495	0	0	0	0	0	0	0	0	Src homology 3 domains;	cytoplasm [pmid 9878555]	protein binding [pmid
2186	1	0.000123	0	0	INF		ENSG00000173465:E	SSSCA1			gi|5453838|ref|NP_0	Sjogren syndrome/scleroderr	199	21474	5.2	0	o	Q	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000984	0	1	0.000246	0.000492	0	0	0	0	0	0	0	0	Sjogren's		
2187	1	0.000119	0	0	INF		ENSG00000099622:E	CIRBP			gi|4502847|ref|NP_0	cold inducible RNA binding p	172	18648	9.5	0	o	Q	21	0.001	0	0	0	0	0	0	0	0	0	0	0	0.000949	0	1	0.000237	0.000474	0	0	0	0	0	0	0	0	RNA recognition motif;	nucleus	nucleotide binding; RNA
2188	1	0.000118	0	0	INF		ENSG00000146386:E	C6orf115			gi|24308273|ref|NP_	hypothetical protein LOC585	81	9056	6.3	0	o	Q	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000948	1	0.000237	0.000474	0	0	0	0	0	0	0	0			
2189	1	0.000112	0	0	INF		ENSG00000139343:E	SNRPF			gi|4507131|ref|NP_0	small nuclear ribonucleoprote	86	9725	4.7	0	o	Q	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000893	1	0.000223	0.000446	0	0	0	0	0	0	0	0	The eukaryotic Sm and Sm-	nucleus; ribonucleoprotein	RNA binding
2190	1	0.000111	0	0	INF		ENSG00000130255:E	RPL36			gi|16117796|ref|NP_	ribosomal protein L36 [Homo	105	12254	11.6	0	o	Q	15	0	0	0.000889	0	0	0	1	0.000222	0.000444	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Ribosomal protein L36e;	cytosolic large ribosomal	structural constituent of
2191	1	0.000107	0	0	INF		ENSG00000173598:E	NUDT4			gi|40317632|ref|NP_	nudix-type motif 4 isoform alp	180	20306	6.4	0	o	Q	37	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000853	1	0.000213	0.000427	0	0	0	0	0	0	0	0	Members of the Nudix	intracellular	diphosphoinositol-
2192	1	0.000101	0	0	INF		ENSG00000105205:N	CLC			gi|20357559|ref|NP_	Charcot-Leyden crystal prote	142	16453	7.4	0	o	Q	18	0.023	0	0	0	0	0	0	0	0	0	0	0	0	0.000811	1	0.000203	0.000406	0	0	0	0	0	0	0	0	Galectin/galactose-binding		hydrolase activity;
2193	1	0.000101	0	0	INF		ENSG00000150459:N	SAP18			gi|5032067|ref|NP_0	Sin3A-associated protein, 18	153	17561	9.4	0	o	Q	0	0	0	0	0	0.000808	0	1	0.000202	0.000404	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Sin3 associated	histone deacetylase complex	protein binding [pmid
2194	1	9.89E-05	0	0	INF		ENSG00000196754:N	S100A2			gi|5174661|ref|NP_0	S100 calcium binding protein	97	10986	4.8	0	o	Q	22	0.178	0	0	0	0	0	0	0	0	0	0	0	0	0.000791	1	0.000198	0.000396	0	0	0	0	0	0	0	0	S-100/ICaBP-like domain;		calcium ion binding [pmid
2195	1	9.6E-05	0	0	INF		ENSG00000163882:E	POLR2H			gi|14589953|ref|NP_	RNA polymerase II, polypept	150	17143	4.7	0	o	Q	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000768	1	0.000192	0.000384	0	0	0	0	0	0	0	0	RNA polymerase Rpb8.	nucleus	DNA-directed RNA
2196	1	9.23E-05	0	0	INF		ENSG00000004779:E	NDUFAB1			gi|4826852|ref|NP_0	NADH dehydrogenase (ubiqu	156	17417	4.9	0	o	S	56	0.981	0	0	0	0	0	0	0	0	0	0	0	0	0.000738	1	0.000185	0.000369	0	0	0	0	0	0	0	0	acyl carrier protein;	membrane fraction;	acyl carrier activity; cofactor
2197	1	8.87E-05	0	0	INF		ENSG00000082701:E	GSK3B			gi|21361340|ref|NP_	glycogen synthase kinase 3 b	433	48034	8.8	0	o	Q	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000709	1	0.000177	0.000355	0	0	0	0	0	0	0	0	Serine/Threonine protein		ATP binding; glycogen
2198	1	8.58E-05	0	0	INF		ENSG00000174021:E	GNG5			gi|4885287|ref|NP_0	guanine nucleotide binding p	68	7318	9.9	0	o	Q	16	0.001	0	0.000686	0	0	0	1	0.000172	0.000343	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	G protein gamma subunit-	heterotrimeric G-protein	signal transducer activity
2199	1	8.57E-05	0	0	INF		ENSG00000132286:N	FXC1			gi|6912382|ref|NP_0	fractured callus expressed tra	103	11586	7.4	0	i	Q	31	0	0	0	0	0.000686	0	1	0.000171	0.000343	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Tim10/DDP family zinc	membrane; mitochondrial	metal ion binding; zinc ion
2200	1	8.37E-05	0	0	INF		ENSG00000140990:E	NDUFB10			gi|4758774|ref|NP_0	NADH dehydrogenase (ubiqu	172	20777	8.5	0	o	Q	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00067	1	0.000167	0.000335	0	0	0	0	0	0	0	0		membrane fraction;	NADH dehydrogenase
2201	1	8.24E-05	0	0	INF		ENSG00000130813:E	C19orf66			gi|154350198|ref|NP	hypothetical protein LOC553	291	33110	7.3	0	o	Q	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00066	1	0.000165	0.00033	0	0	0	0	0	0	0	0			
2202	1	7.65E-05	0	0	INF		ENSG00000164167:E	LSM6			gi|5901998|ref|NP_0	Sm protein F [Homo sapiens]	80	9128	9.6	0	i	Q	28	0	0	0	0	0	0	0	0	0	0	0	0	0.000612	0	1	0.000153	0.000306	0	0	0	0	0	0	0	0	The eukaryotic Sm and Sm-	nucleus; small nuclear	protein binding [pmid
2203	1	7.59E-05	0	0	INF		ENSG00000204435:E	CSNK2B			gi|23503295|ref|NP_	casein kinase 2, beta polype	215	24942	5.6	0	o	Q	19	0.02	0	0	0	0	0	0	0	0	0	0	0	0.000607	0	1	0.000152	0.000304	0	0	0	0	0	0	0	0	Casein kinase II regulatory	protein kinase CK2 complex	identical protein binding
2204	1	7.44E-05	0	0	INF		ENSG00000088986:N	DYNLL1			gi|83267868|ref|NP_	dynein light chain 1 [Homo sa	89	10366	7.4	0	i	Q	0	0	0	0	0	0.000595	0	1	0.000149	0.000298	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Dynein light chain type 1;	dynein complex; microtubule	microtubule motor activity
2205	1	7.08E-05	0	0	INF		ENSG00000106636:E	YKT6			gi|5730120|ref|NP_0	YKT6 v-SNARE protein [Hom	198	22418	6.9	0	o	Q	15	0.027	0	0	0	0	0	0	0	0	0	0.000567	0	0	0	1	0.000142	0.000283	0	0	0	0	0	0	0	0	Synaptobrevin/VAMP-like	endoplasmic reticulum [pmid	protein binding [pmid
2206	1	6.83E-05	0	0	INF		ENSG00000125877:E	ITPA			gi|15626999|ref|NP_	inosine triphosphatase isofor	194	21446	5.6	0	o	Q	18	0.002	0	0	0	0.000546	0	1	0.000137	0.000273	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NTPase/HAM1. This family		hydrolase activity;
2207	1	6.74E-05	0	0	INF		ENSG00000142252:E	GEMIN7			gi|55953074|ref|NP_	gemin 7 [Homo sapiens]	131	14537	7.4	0	o	Q	21	0	0	0	0	0.000539	0	1	0.000135	0.00027	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		cytoplasm [pmid 12065586];	protein binding [pmid
2208	1	6.73E-05	0	0	INF		ENSG00000067955:E	CBFB			gi|13124873|ref|NP_	core-binding factor, beta sub	182	21508	6.6	0	o	Q	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000538	0	1	0.000135	0.000269	0	0	0	0	0	0	0	0	Core binding factor beta	nucleus	protein binding [pmid
2209	1	6.54E-05	0	0	INF		ENSG00000189227:N	LOC145853			gi|169208955|ref|XP	PREDICTED: similar to hCG	223	24767	10.5	0	o	Q	37	0.023	0	0.000523	0	0	0	1	0.000131	0.000261	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2210	1	6.45E-05	0	0	INF		ENSG00000198780:E	FAM169A			gi|153792633|ref|NP	hypothetical protein LOC260	670	74955	4.6	0	o	Q	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000516	1	0.000129	0.000258	0	0	0	0	0	0	0	0			
2211	1	6.42E-05	0	0	INF		ENSG00000133112:E	TPT1			gi|4507669|ref|NP_0	tumor protein, translationally-	172	19595	4.9	0	o	Q	0	0	0	0	0	0.000513	0	1	0.000128	0.000257	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Translationally controlled	cytoplasm [pmid 15162379]	calcium ion binding [pmid
2212	1	6.38E-05	0	0	INF		ENSG00000130640:E	TUBGCP2			gi|5729840|ref|NP_0	tubulin, gamma complex ass	902	102534	6.8	0	o	Q	25	0.004	0	0	0	0	0	0	0	0	0	0	0	0	0.000511	1	0.000128	0.000255	0	0	0	0	0	0	0	0	Spc97 / Spc98 family. The	cytoplasmic microtubule [pmid	
2213	1	6.25E-05	1	1.02E-05	6.102401		ENSG00000155906:E	RMND1			gi|157388927|ref|NP	required for meiotic nuclear c	449	51604	8.7	0	o	Q	20	0.029	0	0	0	0	0	0	0	0	0	0.0005	0	0	0	1	0.000125	0.00025	0	0	0	8.19E-05	0	0	0	0			
2214	1	6.21E-05	0	0	INF		ENSG00000142002:E	DPP9			gi|51988902|ref|NP_	dipeptidylpeptidase 9 [Homo	850	96613	6.5	0	o	Q	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000497	1	0.000124	0.000248	0	0	0	0	0	0	0	0	Dipeptidyl peptidase IV	membrane	aminopeptidase activity;
2215	1	6.09E-05	0	0	INF		ENSG00000177700:E	POLR2L			gi|10863925|ref|NP_	DNA directed RNA polymera	67	7645	7.8	0	o	Q	33	0.002	0	0	0	0	0	0	0	0	0	0	0	0.000487	0	1	0.000122	0.000244	0	0	0	0	0	0	0	0	DNA-directed RNA	nucleus	DNA binding; DNA-directed
2216	1	5.88E-05	0	0	INF		ENSG00000196976:E	LAGE3			gi|24430137|ref|NP_	L antigen family, member 3 [	143	14804	8.6	0	o	Q	43	0	0	0	0	0	0	0	0	0	0	0.000471	0	0	0	1	0.000118	0.000235	0	0	0	0	0	0	0	0	Transcription factor Pcc1.		
2217	1	5.87E-05	0	0	INF		ENSG00000122958:E	VPS26A			gi|17978519|ref|NP_	vacuolar protein sorting 26 A	327	38170	6.5	0	o	Q	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00047	1	0.000117	0.000235	0	0	0	0	0	0	0	0	Vacuolar protein sorting-	cytosol [pmid 11102511];	protein binding [pmid
2218	1	5.72E-05	0	0	INF		ENSG00000173141:E	MRP63			gi|13128970|ref|NP_	mitochondrial ribosomal prote	102	12266	11.5	0	o	Q	15	0.002	0	0.000457	0	0	0	1	0.000114	0.000229	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2219	1	5.63E-05	0	0	INF		ENSG00000102317:E	RBM3			gi|5803137|ref|NP_0	RNA binding motif protein 3 [	157	17170	8.9	0	o	Q	21	0	0	0	0	0.00045	0	1	0.000113	0.000225	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	RNA recognition motif;		nucleic acid binding;
2220	1	5.58E-05	0	0	INF		ENSG00000112664:E	NUDT3			gi|5729804|ref|NP_0	nudix-type motif 3 [Homo sap	172	19471	6.4	0	o	Q	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000446	1	0.000112	0.000223	0	0	0	0	0	0	0	0	Members of the Nudix	intracellular	diphosphoinositol-
2221	1	5.57E-05	0	0	INF		ENSG00000128524:E	ATP6V1F			gi|20357547|ref|NP_	ATPase, H+ transporting, lys	119	13370	5.5	0	o	Q	20	0.002	0	0	0	0.000445	0	1	0.000111	0.000223	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ATP synthase (F/14-kDa)	membrane fraction [pmid	hydrogen-transporting ATP
2222	1	5.55E-05	0	0	INF		ENSG00000134058:E	CDK7			gi|4502743|ref|NP_0	cyclin-dependent kinase 7 [H	346	39038	8.5	0	o	Q	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000444	1	0.000111	0.000222	0	0	0	0	0	0	0	0	Serine/Threonine protein	nucleus [pmid 7936635]	androgen receptor binding
2223	1	5.53E-05	0	0	INF		ENSG00000197451:E	HNRPAB			gi|55956919|ref|NP_	heterogeneous nuclear ribon	332	35968	6.9	0	o	Q	46	0	0	0	0	0	0	0	0	0	0	0	0	0.000442	0	1	0.000111	0.000221	0	0	0	0	0	0	0	0	RNA recognition motif.	nucleus	mRNA binding [pmid
2224	1	5.49E-05	0	0	INF		ENSG00000103363:E	TCEB2			gi|46276893|ref|NP_	elongin B isoform b [Homo sa	161	17911	6.1	0	o	Q	0	0	0	0	0	0.000439	0	1	0.00011	0.000219	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Elongin B is part of an E3	nucleus	protein binding [pmid
2225	1	5.36E-05	0	0	INF		ENSG00000176261:E	ZBTB8OS			gi|30425510|ref|NP_	zinc finger and BTB domain c	179	20675	4.6	0	o	Q	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000429	1	0.000107	0.000214	0	0	0	0	0	0	0	0	Protein of unknown function		
2226	1	5.24E-05	0	0	INF		ENSG00000130725:E	UBE2M			gi|4507791|ref|NP_0	ubiquitin-conjugating enzyme	183	20900	7.7	0	o	Q	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00042	1	0.000105	0.00021	0	0	0	0	0	0	0	0	Ubiquitin-conjugating		ligase activity; ubiquitin-
2227	1	5.16E-05	0	0	INF		ENSG00000132376:E	SKIP			gi|18765707|ref|NP_	skeletal muscle and kidney e	372	42784	6.5	0	o	Q	27	0.006	0	0	0	0	0	0	0	0	0	0	0	0	0.000413	1	0.000103	0.000206	0	0	0	0	0	0	0	0	Calcium binding and coiled-		
2228	1	5.16E-05	0	0	INF		ENSG00000153487:E	ING1			gi|38201667|ref|NP_	inhibitor of growth family, me	279	31864	7.1	0	o	Q	26	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000413	1	0.000103	0.000206	0	0	0	0	0	0	0	0	PHD-finger. PHD folds into	nucleus [pmid 10866301]	metal ion binding; protein
2229	1	5.15E-05	0	0	INF		ENSG00000119705:E	C14orf156			gi|13654278|ref|NP_	SRA stem-loop-interacting R	109	12349	10.2	0	o	Q	32	0.045	0	0	0	0	0	0	0	0	0	0.000412	0	0	0	1	0.000103	0.000206	0	0	0	0	0	0	0	0	RNA recognition motif;	mitochondrion; nucleus	nucleotide binding; RNA
2230	1	5.05E-05	0	0	INF		ENSG00000198904:N	APOBEC3D			gi|22907039|ref|NP_	apolipoprotein B mRNA editi	190	22826	7.6	0	o	Q	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000404	1	0.000101	0.000202	0	0	0	0	0	0	0	0	APOBEC-like C-terminal		hydrolase activity; hydrolase
2231	1	5.04E-05	0	0	INF		ENSG00000129559:E	NEDD8			gi|5453760|ref|NP_0	neural precursor cell express	81	9072	8.4	0	o	Q	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000403	0	1	0.000101	0.000201	0	0	0	0	0	0	0	0	Nedd8 (also known as	nucleus [pmid 9353319]	ubiquitin conjugating enzyme
2232	1	5E-05	0	0	INF		ENSG00000069424:E	KCNAB2			gi|27436969|ref|NP_	potassium voltage-gated cha	353	39287	8.6	0	o	Q	48	0.008	0	0	0	0.0004	0	1	0.0001	0.0002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Predicted oxidoreductases	cytoplasm; integral to	ion channel activity;
2233	1	5E-05	0	0	INF		ENSG00000132953:E	XPO4			gi|148886661|ref|NP	exportin 4 [Homo sapiens]	1151	130139	5	0	o	Q	19	0.003	0	0	0	0	0	0	0	0	0	0	0	0	0.0004	1	0.0001	0.0002	0	0	0	0	0	0	0	0			
2234	1	4.88E-05	0	0	INF		ENSG00000099964:E	MIF			gi|4505185|ref|NP_0	macrophage migration inhibit	115	12476	7.9	0	o	Q	33	0.002	0	0	0	0	0	0	0	0	0	0.00039	0	0	0	1	9.75E-05	0.000195	0	0	0	0	0	0	0	0	Macrophage migration	extracellular region [pmid	cytokine activity [pmid
2235	1	4.81E-05	0	0	INF		gi|169201473|ref|XP_	LOC100131133			gi|169201473|ref|XP	PREDICTED: similar to hCG	299	32030	6.2	0	o	Q	44	0.046	0	0	0	0	0	0	0	0	0	0	0	0	0.000385	1	9.63E-05	0.000193	0	0	0	0	0	0	0	0			
2236	1	4.8E-05	0	0	INF		ENSG00000146833:N	TRIM4			gi|14670266|ref|NP_	tripartite motif protein TRIM4	500	57401	8.1	0	o	Q	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000384	1	9.6E-05	0.000192	0	0	0	0	0	0	0	0	RING-finger (Really	intracellular	metal ion binding; protein
2237	1	4.75E-05	0	0	INF		ENSG00000166289:E	PLEKHF1			gi|153791377|ref|NP	apoptosis-inducing protein D	279	31195	8.2	0	o	Q	27	0.001	0	0	0	0.00038	0	1	9.5E-05	0.00019	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2238	1	4.58E-05	0	0	INF		ENSG00000100575:E	TIMM9			gi|6912714|ref|NP_0	translocase of inner mitochor	89	10378	7.2	0	o	Q	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000367	0	1	9.17E-05	0.000183	0	0	0	0	0	0	0	0	Tim10/DDP family zinc	membrane; mitochondrial	metal ion binding; zinc ion
2239	1	4.56E-05	0	0	INF		ENSG00000085063:E	CD59			gi|42761474|ref|NP_	CD59 antigen p18-20 [Homo	128	14177	6.5	0	o	S	26	0.997	0	0.000364	0	0	0	1	9.11E-05	0.000182	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Ly-6 antigen / uPA receptor	membrane fraction [pmid	GPI anchor binding; protein
2240	1	4.51E-05	0	0	INF		ENSG00000172183:E	ISG20			gi|6857800|ref|NP_0	interferon stimulated exonucl	181	20363	8.9	0	o	Q	36	0	0	0	0	0	0	0	0	0	0	0	0	0.000361	0	1	9.02E-05	0.00018	0	0	0	0	0	0	0	0	exonuclease domain in	intracellular; nucleoplasm	3'-5'-exoribonuclease activity
2241	1	4.48E-05	0	0	INF		ENSG00000150456:E	N6AMT2			gi|28372547|ref|NP_	N-6 adenine-specific DNA m	214	24506	4.5	0	o	Q	26	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000359	1	8.97E-05	0.000179	0	0	0	0	0	0	0	0			
2242	1	4.42E-05	0	0	INF		ENSG00000124107:E	SLPI			gi|4507065|ref|NP_0	secretory leukocyte peptidas	132	14326	8.7	0	o	S	26	0.999	0	0.000353	0	0	0	1	8.83E-05	0.000177	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Four-disulfide core		serine-type endopeptidase
2243	1	4.33E-05	0	0	INF		ENSG00000148362:E	C9orf142			gi|39930541|ref|NP_	hypothetical protein LOC286	204	21640	5.5	0	o	Q	16	0	0	0	0	0.000346	0	1	8.66E-05	0.000173	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2244	1	4.31E-05	0	0	INF		ENSG00000115523:N	GNLY			gi|157502222|ref|NP	granulysin isoform 519 [Hom	130	14853	9	0	o	Q	20	0.001	0	0	0	0	0	0	0	0	0	0.000345	0	0	0	1	8.63E-05	0.000173	0	0	0	0	0	0	0	0			
2245	1	4.28E-05	0	0	INF		ENSG00000101421:E	CHMP4B			gi|28827795|ref|NP_	chromatin modifying protein 4	224	24950	4.8	0	o	Q	16	0.013	0	0	0	0	0	0	0	0	0	0	0	0	0.000343	1	8.57E-05	0.000171	0	0	0	0	0	0	0	0	Snf7. This family of proteins		
2246	1	4.22E-05	0	0	INF		ENSG00000169217:E	CD2BP2			gi|5174409|ref|NP_0	CD2 antigen (cytoplasmic tai	341	37646	4.6	0	o	Q	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000338	1	8.44E-05	0.000169	0	0	0	0	0	0	0	0	GYF domain: contains	cytoplasm [pmid 9843987]	
2247	1	4.16E-05	0	0	INF		ENSG00000153048:E	CARHSP1			gi|109715858|ref|NP	calcium-regulated heat-stable	147	15892	8.2	0	o	Q	27	0	0	0	0	0	0	0	0	0	0	0	0	0.000333	0	1	8.33E-05	0.000167	0	0	0	0	0	0	0	0			
2248	1	4.09E-05	0	0	INF		ENSG00000135002:E	RFK			gi|19923525|ref|NP_	riboflavin kinase [Homo sapie	162	18410	8	0	o	Q	18	0.001	0	0	0	0.000327	0	1	8.18E-05	0.000164	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Riboflavin kinase. This	cytoplasm [pmid 12623014]	ATP binding; magnesium ion
2249	1	4.01E-05	0	0	INF		ENSG00000183291:E	SEPT15			gi|42741648|ref|NP_	15 kDa selenoprotein isoform	165	17942	5	0	o	S	32	0.998	0	0	0	0.000321	0	1	8.03E-05	0.000161	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Sep15/SelM redox domain.	endoplasmic reticulum;	protein binding [pmid
2250	1	4.01E-05	0	0	INF		ENSG00000136522:E	MRPL47			gi|29826285|ref|NP_	mitochondrial ribosomal prote	140	16991	10.7	0	o	Q	0	0	0	0	0	0	0	0	0	0	0	0.00032	0	0	0	1	8.01E-05	0.00016	0	0	0	0	0	0	0	0	Mitochondrial 39-S	mitochondrial ribosome;	structural constituent of
2251	1	0.00004	0	0	INF		ENSG00000163634:E	THOC7			gi|156151381|ref|NP	Ngg1 interacting factor 3 like	204	23743	5.7	0	o	Q	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00032	0	1	0.00008	0.00016	0	0	0	0	0	0	0	0			
2252	1	3.94E-05	0	0	INF		ENSG00000154582:E	TCEB1			gi|5032161|ref|NP_0	elongin C [Homo sapiens]	112	12473	4.8	0	o	Q	0	0	0	0	0	0.000315	0	1	7.89E-05	0.000158	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Found in Skp1 protein	nucleus	protein binding [pmid
2253	1	3.92E-05	0	0	INF		ENSG00000137364:E	TPMT			gi|4507653|ref|NP_0	thiopurine S-methyltransfera	245	28180	6.2	0	o	Q	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000313	1	7.83E-05	0.000157	0	0	0	0	0	0	0	0	Thiopurine S-	cytoplasm	methyltransferase activity;
2254	1	3.9E-05	0	0	INF		ENSG00000165512:E	ZNF22			gi|42714596|ref|NP_	zinc finger protein 22 (KOX 1	224	25915	10	0	o	Q	20	0	0	0.000312	0	0	0	1	7.81E-05	0.000156	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	FOG: Zn-finger [General	intracellular; nucleus	DNA binding; metal ion
2255	1	3.88E-05	0	0	INF		ENSG00000171700:E	RGS19			gi|86990435|ref|NP_	G protein signalling regulator	217	24636	5.6	0	o	Q	50	0	0	0	0	0	0	0	0	0	0	0.00031	0	0	0	1	7.75E-05	0.000155	0	0	0	0	0	0	0	0	Regulator of G protein	Golgi apparatus [pmid	GTPase activator activity;
2256	1	3.85E-05	0	0	INF		ENSG00000161939:E	C17orf49			gi|52856421|ref|NP_	hypothetical protein LOC124	172	17900	7.3	0	o	Q	24	0.038	0	0	0	0.000308	0	1	7.7E-05	0.000154	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		nucleus	DNA binding
2257	1	3.81E-05	0	0	INF		ENSG00000076242:E	MLH1			gi|4557757|ref|NP_0	MutL protein homolog 1 [Hon	756	84601	5.7	0	o	Q	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000305	1	7.62E-05	0.000152	0	0	0	0	0	0	0	0	Histidine kinase-like	nucleus	ATP binding; protein binding
2258	1	3.79E-05	0	0	INF		ENSG00000108465:E	CDK5RAP3			gi|28872792|ref|NP_	CDK5 regulatory subunit ass	506	56921	4.8	0	o	Q	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000303	1	7.59E-05	0.000152	0	0	0	0	0	0	0	0	Protein of unknown function		neuronal Cdc2-like kinase
2259	1	3.74E-05	0	0	INF		ENSG00000119559:E	C19orf25			gi|154240706|ref|NP	hypothetical protein LOC148	118	12878	5.1	0	o	Q	23	0.003	0	0	0	0.000299	0	1	7.48E-05	0.00015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2260	1	3.72E-05	0	0	INF		ENSG00000151876:E	FBXO4			gi|15834619|ref|NP_	F-box only protein 4 isoform	387	44136	6.2	0	o	Q	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000298	1	7.44E-05	0.000149	0	0	0	0	0	0	0	0	F-box domain. This domain	ubiquitin ligase complex [pmid	ubiquitin-protein ligase
2261	1	3.68E-05	0	0	INF		ENSG00000145293:E	ENOPH1			gi|10864017|ref|NP_	enolase-phosphatase 1 [Hom	261	28933	4.8	0	o	Q	20	0.065	0	0	0	0	0	0	0	0	0	0	0	0	0.000294	1	7.35E-05	0.000147	0	0	0	0	0	0	0	0	Predicted enolase-		hydrolase activity;
2262	1	3.62E-05	0	0	INF		ENSG00000100931:N	CHMP4A			gi|40548422|ref|NP_	chromatin modifying protein 4	265	29804	5.1	0	o	Q	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00029	1	7.24E-05	0.000145	0	0	0	0	0	0	0	0	Snf7. This family of proteins	membrane	lipid binding
2263	1	3.62E-05	0	0	INF		ENSG00000133119:E	RFC3			gi|108773789|ref|NP	replication factor C 3 isoform	305	34756	8.4	0	o	Q	0	0	0	0	0	0.00029	0	1	7.24E-05	0.000145	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2264	1	3.53E-05	0	0	INF		ENSG00000115128:E	SF3B14			gi|7706326|ref|NP_0	splicing factor 3B, 14 kDa su	125	14585	9.4	0	i	Q	33	0	0	0	0	0.000283	0	1	7.07E-05	0.000141	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	RNA recognition motif;	nucleus	nucleotide binding; RNA
2265	1	3.51E-05	0	0	INF		ENSG00000020633:E	RUNX3			gi|4757918|ref|NP_0	runt-related transcription fact	415	44356	9.5	0	o	Q	49	0.008	0	0.000281	0	0	0	1	7.03E-05	0.000141	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Runx inhibition domain. This	nucleus	ATP binding [pmid 7835892];
2266	1	3.48E-05	0	0	INF		ENSG00000167196:E	FBXO22			gi|13443000|ref|NP_	F-box only protein 22 isoform	276	30589	6.8	0	o	Q	36	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000278	1	6.95E-05	0.000139	0	0	0	0	0	0	0	0	F-box domain. This domain		
2267	1	3.47E-05	0	0	INF		ENSG00000159840:E	ZYX			gi|58530845|ref|NP_	zyxin [Homo sapiens]	572	61277	6.7	0	o	Q	19	0.122	0	0	0	0.000278	0	1	6.95E-05	0.000139	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Zinc-binding domain	cell-cell adherens junction	metal ion binding; protein
2268	1	3.46E-05	0	0	INF		ENSG00000108679:E	LOC100133842			gi|169211543|ref|XP	PREDICTED: similar to lectin	554	61645	5.5	0	o	Q	46	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0.000277	1	6.93E-05	0.000139	0	0	0	0	0	0	0	0			
2269	1	3.46E-05	0	0	INF		ENSG00000011052:N	NME1-NME2			gi|38045913|ref|NP_	non-metastatic cells 1, protei	177	19654	5.6	0	o	S	22	0.649	0	0	0	0	0	0	0	0	0	0	0	0.000277	0	1	6.92E-05	0.000138	0	0	0	0	0	0	0	0	Nucleoside diphosphate	cytoplasm [pmid 16130169];	ATP binding;
2270	1	3.44E-05	0	0	INF		ENSG00000140450:E	ARRDC4			gi|34419647|ref|NP_	arrestin domain containing 4	418	45449	6.2	0	o	Q	16	0.036	0	0	0	0	0	0	0	0	0	0	0	0	0.000276	1	6.89E-05	0.000138	0	0	0	0	0	0	0	0	Arrestin (or S-antigen), N-		
2271	1	3.41E-05	0	0	INF		ENSG00000101019:E	UQCC			gi|41327685|ref|NP_	basic FGF-repressed Zic bin	299	34600	8.9	0	o	Q	33	0.08	0	0	0	0	0	0	0	0	0	0	0	0.000273	0	1	6.82E-05	0.000136	0	0	0	0	0	0	0	0	Ubiquinol-cytochrome C		
2272	1	3.4E-05	0	0	INF		ENSG00000172062:E	LOC100133835			gi|169167322|ref|XP	PREDICTED: hypothetical pr	282	30450	5.5	0	o	Q	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000272	1	6.81E-05	0.000136	0	0	0	0	0	0	0	0			
2273	1	3.39E-05	0	0	INF		ENSG00000160679:E	C1orf77			gi|28875797|ref|NP_	hypothetical protein LOC260	248	26397	12.2	0	o	Q	16	0	0	0	0	0	0	0	0	0	0	0.000271	0	0	0	1	6.78E-05	0.000136	0	0	0	0	0	0	0	0			protein binding [pmid
2274	1	3.38E-05	0	0	INF		ENSG00000159111:E	MRPL10			gi|22547114|ref|NP_	mitochondrial ribosomal prote	261	29283	9.6	0	o	Q	16	0.113	0	0	0	0.000271	0	1	6.77E-05	0.000135	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50S ribosomal protein L10;		
2275	1	3.38E-05	0	0	INF		ENSG00000117543:E	DPH5			gi|117190324|ref|NP	diphthine synthase isoform b	284	31580	5.3	0	o	Q	13	0.002	0	0	0	0	0	0	0	0	0	0	0	0	0.00027	1	6.76E-05	0.000135	0	0	0	0	0	0	0	0			
2276	1	3.37E-05	0	0	INF		ENSG00000131368:E	MRPS25			gi|14028877|ref|NP_	mitochondrial ribosomal prote	173	20116	8.8	0	o	Q	20	0	0	0.00027	0	0	0	1	6.74E-05	0.000135	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Mitochondrial ribosomal	mitochondrial small ribosomal	nucleic acid binding;
2277	1	3.34E-05	0	0	INF		ENSG00000136147:E	PHF11			gi|94681065|ref|NP_	PHD finger protein 11 isoform	331	37582	7.7	0	o	Q	38	0.004	0	0	0	0.000267	0	1	6.67E-05	0.000133	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			metal ion binding; protein
2278	1	3.29E-05	0	0	INF		ENSG00000145494:E	NDUFS6			gi|4758792|ref|NP_0	NADH dehydrogenase (ubiqu	124	13712	8.3	0	o	Q	18	0.215	0	0	0	0	0	0	0	0	0	0	0	0.000263	0	1	6.58E-05	0.000132	0	0	0	0	0	0	0	0	Uncharacterized protein	mitochondrion	NADH dehydrogenase
2279	1	3.14E-05	0	0	INF		ENSG00000103510:E	MYST1			gi|14149875|ref|NP_	MYST histone acetyltransfera	458	52378	8.3	0	o	S	20	0.979	0	0	0	0	0	0	0	0	0	0	0	0	0.000251	1	6.29E-05	0.000126	0	0	0	0	0	0	0	0	Chromatin organization	chromatin; nucleus [pmid	acetyltransferase activity
2280	1	3.13E-05	0	0	INF		ENSG00000070010:E	UFD1L			gi|29501813|ref|NP_	ubiquitin fusion degradation 1	307	34500	6.7	0	o	Q	39	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00025	1	6.25E-05	0.000125	0	0	0	0	0	0	0	0	Ubiquitin fusion degradation		ubiquitin-specific protease
2281	1	3.11E-05	0	0	INF		ENSG00000144231:E	POLR2D			gi|4758574|ref|NP_0	DNA directed RNA polymera	142	16311	4.8	0	o	Q	0	0	0	0	0	0.000249	0	1	6.22E-05	0.000124	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	DNA-directed RNA-	DNA-directed RNA	DNA-directed RNA
2282	1	3.11E-05	0	0	INF		ENSG00000141560:E	FN3KRP			gi|20149680|ref|NP_	fructosamine-3-kinase-relate	309	34412	7.3	0	o	Q	27	0.002	0	0	0	0	0	0	0	0	0	0	0	0	0.000248	1	6.21E-05	0.000124	0	0	0	0	0	0	0	0	Uncharacterized protein		kinase activity; transferase
2283	1	3.09E-05	0	0	INF		ENSG00000070423:E	RNF126			gi|37622894|ref|NP_	ring finger protein 126 [Homo	311	33862	5.5	0	o	Q	26	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000247	1	6.17E-05	0.000123	0	0	0	0	0	0	0	0	RING-finger (Really		metal ion binding; protein
2284	1	3.05E-05	0	0	INF		ENSG00000172081:E	MOBKL2A			gi|18677731|ref|NP_	MOB-LAK [Homo sapiens]	217	25464	8.6	0	o	Q	49	0	0	0	0	0.000244	0	1	6.11E-05	0.000122	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Mob1/phocein family. Mob1	intracellular [pmid 11256614]	metal ion binding; zinc ion
2285	1	3.02E-05	0	0	INF		ENSG00000166899:N	FABP5L7			gi|169202850|ref|XP	PREDICTED: hypothetical pr	135	15164	7	0	o	Q	40	0	0	0	0	0	0	0	0	0	0	0	0	0.000242	0	1	6.04E-05	0.000121	0	0	0	0	0	0	0	0			
2286	1	3.02E-05	0	0	INF		ENSG00000023697:E	DERA			gi|116063554|ref|NP	deoxyribose-phosphate aldol	318	35231	8.9	0	o	Q	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000241	1	6.04E-05	0.000121	0	0	0	0	0	0	0	0			
2287	1	2.98E-05	1	5.72E-06	5.213184		ENSG00000136485:E	WDR68			gi|108936958|ref|NP	WD-repeat protein [Homo sa	342	38926	5.5	0	o	Q	29	0	0	0	0	0	0	0	0	0	0	0	0	0.000239	0	1	5.96E-05	0.000119	0	0	0	0	0	4.58E-05	0	0			
2288	1	2.98E-05	0	0	INF		ENSG00000179295:E	PTPN11			gi|33356177|ref|NP_	protein tyrosine phosphatase	593	68011	7.3	0	o	Q	28	0.002	0	0	0	0.000238	0	1	5.96E-05	0.000119	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Protein tyrosine		hydrolase activity; non-
2289	1	2.98E-05	0	0	INF		ENSG00000126254:E	RBM42			gi|21359951|ref|NP_	RNA binding motif protein 42	480	50414	9.6	0	o	Q	25	0.053	0	0	0	0	0	0	0	0	0	0	0	0.000238	0	1	5.95E-05	0.000119	0	0	0	0	0	0	0	0	RNA recognition motif.		nucleotide binding; RNA
2290	1	2.94E-05	0	0	INF		ENSG00000185127:E	C6orf120			gi|71143156|ref|NP_	hypothetical protein LOC387	191	20772	4.8	0	o	S	31	1	0	0	0	0	0	0	0	0	0	0.000235	0	0	0	1	5.87E-05	0.000117	0	0	0	0	0	0	0	0			
2291	1	2.89E-05	0	0	INF		ENSG00000189114:E	BLOC1S3			gi|47086495|ref|NP_	biogenesis of lysosome-relat	202	21256	5.1	0	o	Q	28	0	0	0.000231	0	0	0	1	5.77E-05	0.000115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			identical protein binding
2292	1	2.89E-05	0	0	INF		ENSG00000205751:N	MRPL23			gi|27436904|ref|NP_	mitochondrial ribosomal prote	153	17811	9.7	0	o	Q	35	0.028	0	0	0	0.000231	0	1	5.77E-05	0.000115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50S ribosomal protein L23;	mitochondrial large ribosomal	nucleotide binding; RNA
2293	1	2.87E-05	0	0	INF		ENSG00000122694:E	C9orf19			gi|11641247|ref|NP_	chromosome 9 open reading	154	17218	9.4	0	o	Q	0	0	0	0	0	0.000229	0	1	5.74E-05	0.000115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	SCP / Tpx-1 / Ag5 / PR-1 /	extracellular region;	
2294	1	2.86E-05	0	0	INF		ENSG00000130731:E	C16orf13			gi|93102387|ref|NP_	hypothetical protein LOC843	204	22578	7.8	0	o	Q	49	0	0	0.000229	0	0	0	1	5.72E-05	0.000114	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Protein of unknown function		
2295	1	2.83E-05	0	0	INF		ENSG00000071539:E	TRIP13			gi|11321607|ref|NP_	thyroid hormone receptor inte	432	48551	6.1	0	o	Q	17	0	0	0	0	0	0	0	0	0	0	0	0	0.000227	0	1	5.67E-05	0.000113	0	0	0	0	0	0	0	0	ATPases associated with a	nucleus [pmid 7776974]	ATP binding; nucleoside-
2296	1	2.81E-05	0	0	INF		ENSG00000144840:E	RABL3			gi|62751417|ref|NP_	RAB, member of RAS oncog	236	26423	7.1	0	o	Q	34	0.018	0	0	0	0.000225	0	1	5.61E-05	0.000112	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	RabL3 (Rab-like3)	intracellular	ATP binding; GTP binding;
2297	1	2.76E-05	0	0	INF		ENSG00000168101:E	NUDT16L1			gi|14150147|ref|NP_	syndesmos [Homo sapiens]	211	23338	8.9	0	o	Q	43	0.004	0	0.000221	0	0	0	1	5.53E-05	0.000111	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2298	1	2.73E-05	0	0	INF		ENSG00000047579:E	DTNBP1			gi|19549327|ref|NP_	dystrobrevin binding protein 1	351	39493	4.7	0	o	Q	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000219	1	5.47E-05	0.000109	0	0	0	0	0	0	0	0	Dysbindin (Dystrobrevin	axon; cytoplasm; nucleus;	identical protein binding
2299	1	2.73E-05	0	0	INF		ENSG00000198585:E	NUDT16			gi|24308370|ref|NP_	nudix-type motif 16 [Homo sa	162	17830	6.7	0	o	Q	24	0.012	0	0	0	0.000218	0	1	5.45E-05	0.000109	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			hydrolase activity;
2300	1	2.71E-05	0	0	INF		ENSG00000108179:E	PPIF			gi|5031987|ref|NP_0	peptidylprolyl isomerase F pr	207	22040	9.4	0	o	S	30	0.711	0	0	0	0	0	0	0	0	0	0.000217	0	0	0	1	5.42E-05	0.000108	0	0	0	0	0	0	0	0	cyclophilin_ABH_like:	membrane fraction [pmid	isomerase activity; peptide
2301	1	2.7E-05	0	0	INF		ENSG00000101843:E	PSMD10			gi|28605137|ref|NP_	proteasome 26S non-ATPase	151	16137	6	0	o	Q	17	0.066	0	0	0	0	0	0	0	0	0	0	0	0.000216	0	1	5.4E-05	0.000108	0	0	0	0	0	0	0	0	ankyrin repeats; ankyrin	cytosol; proteasome	
2302	1	2.66E-05	0	0	INF		ENSG00000118939:E	UCHL3			gi|5174741|ref|NP_0	ubiquitin carboxyl-terminal es	230	26183	4.9	0	o	Q	19	0	0	0	0	0	0	0	0	0	0	0	0	0.000213	0	1	5.32E-05	0.000106	0	0	0	0	0	0	0	0	Ubiquitin carboxyl-terminal	cytoplasm; intracellular	cysteine-type peptidase
2303	1	2.65E-05	0	0	INF		ENSG00000126524:E	SBDS			gi|28416940|ref|NP_	Shwachman-Bodian-Diamon	250	28764	8.7	0	o	Q	24	0	0	0	0	0.000212	0	1	5.3E-05	0.000106	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Shwachman-Bodian-		

rk	NEs detected # out of 10 runs	NEs dNSAF_AVG	MMs detected # out of 8 runs	MMs dNSAF_AVG	NEs:MMs	Detected in Mitochondria	ORTHO_GROUP	GENE_NAME	NET_NAME	Location & Gene Expression Data	Locus	Description	Length	MW	pI	PredHel	TMHMM_Topology	SIGNALP_HMM_TYPE (S=signal; A= Anchor; Q= none)	SIGNALP_HMM_POS	SIGNALP_HMM_PROB	RESTING LYMPHOCYTES NEs: HsNaOH-NE_NT_lymphocytes_Tl_1_dNSAF	HsNaOH-NE_NT_lymphocytes_Tl_1_dNSAF	HsNaOH-NE_NT_lymphocytes_PK_1_dNSAF	HsSD-NE_NT_lymphocytes_Tl_1_dNSAF	HsSD-NE_NT_lymphocytes_PK_1_dNSAF	NT-bNEs Detected # Out of 5	NT-dNEs AVG	NT-bNEs SDV	PHA-TREATED LYMPHOCYTES NEs: HsNaOH-NE_PHA_lymphocytes_Tl_1_dNSAF	HsNaOH-NE_PHA_lymphocytes_Tl_1_dNSAF	HsNaOH-NE_PHA_lymphocytes_PK_1_dNSAF	HsSD-NE_PHA_lymphocytes_Tl_1_dNSAF	HsSD-NE_PHA_lymphocytes_PK_1_dNSAF	PHA-bNEs Detected # Out of 5	PHA-dNEs AVG	PHA-bNEs SDV	MMs: MmNaOH-MM_liver_CNBrTl_1_dNSAF	MmNaOH-MM_liver_CNBrTl_2_dNSAF	RnNaOH-MM_liver_Tl_1_dNSAF	RnNaOH-MM_liver_Tl_2_dNSAF	RnNaOH-MM_liver_Tl_3_dNSAF	RnNaOH-MM_liver_Tl_4_dNSAF	RnNaOH-MM_liver_PK_1_dNSAF	RnNaOH-MM_liver_PK_2_dNSAF	Region_Note	GO_Component	GO_Function
2304	1	2.63E-05	0	0	INF		ENSG00000171115	GMAPR			gi	28416956	ref	NP_	GTPase, IMAP family membe	665	74890	8.3	0	O	Q	22	0.008	0	0.00023	0	0	0	1	5.26E-05	0.000105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	AAX1 (arrf8p2-induced		GTP binding
2305	1	2.62E-05	0	0	INF		ENSG00000126698	DNAJC8			gi	11229327	ref	NP	DnaJ (Hsp40) homolog, subf	253	29842	9.1	0	O	Q	17	0	0	0	0.000209	1	5.24E-05	0.000105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2306	1	2.61E-05	0	0	INF		ENSG00000164132	NDUFA12L			gi	27894809	ref	NP_	NADH dehydrogenase (ubiq	169	19427	9.6	0	O	Q	17	0.001	0	0	0.000209	1	5.23E-05	0.000105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NADH ubiquinone	membrane; mitochondrion	electron carrier activity;
2307	1	2.55E-05	0	0	INF		ENSG00000182307	C8orf33			gi	12751401	ref	NP_	hypothetical protein LOC852	229	24992	10	0	O	Q	19	0.173	0	0.000204	0	0	0	1	5.09E-05	0.000102	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2308	1	2.48E-05	0	0	INF		ENSG00000173540	GMPPB			gi	11761619	ref	NP_	GDP-mannose pyrophospho	387	42650	6.4	0	O	Q	21	0.304	0	0	0	0	0	0	0.000198	1	4.96E-05	0.992E-05	0	0	0	0	0	0	0	0	0	0	0	0	Left-Handed Parallel beta-		acyltransferase activity;
2309	1	2.45E-05	0	0	INF		ENSG00000083123	BCKDHB			gi|34101272|ref|NP_	branched chain keto acid de	392	43123	6	0	O	S	20	0.994	0	0	0	0	0	0	0.000196	1	4.9E-05	9.79E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Transketolase, pyrimidine	alpha-ketoglutarate	3-methyl-2-oxobutanoate
2310	1	2.44E-05	0	0	INF		ENSG00000163320	CCGBP1			gi	56550055	ref	NP_	CGG triplet repeat binding pr	167	18820	9	0	O	Q	18	0	0	0	0	0	0	1	4.89E-05	0.000195	0	0	0	0	0	0	0	0	0	0	0	0	0	0		nucleus [pmid 11256614]	
2311	1	2.43E-05	0	0	INF		ENSG00000205220	PSMB10			gi	4506191	ref	NP_	proteasome beta 10 subunit	273	28936	7.8	0	O	Q	55	0.001	0	0	0.000194	1	4.85E-05	9.71E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	proteasome beta type-7	cytosol; proteasome core	threonine endopeptidase
2312	1	2.41E-05	0	0	INF		ENSG00000128928	EVD			gi	4504799	ref	NP_	isovaleryl Coenzyme A dehy	423	46319	8.2	0	O	S	32	0.748	0	0	0	0	0	0	0.000193	1	4.82E-05	9.65E-05	0	0	0	0	0	0	0	0	0	0	0	0	isovaleryl-CoA	mitochondrial matrix [pmid	FAD binding; isovaleryl-CoA
2313	1	2.4E-05	0	0	INF		ENSG00000120699	EXOSC8			gi	31415882	ref	NP_	exosome component 8 [Hom	276	30040	5.3	0	O	Q	0	0	0	0	0.000192	1	4.8E-05	9.6E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3'-exoribonuclease family,	exosome (RNase complex);	3'-5'-exoribonuclease
2314	1	2.38E-05	0	0	INF		ENSG00000182093	CCDC7			gi	50401407	ref	NP_	coiled-coil domain containing	278	31863	5.5	0	O	Q	21	0	0	0	0.000191	1	4.77E-05	9.53E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		microtubule	
2315	1	2.37E-05	0	0	INF		ENSG00000131193	EFAM104A			gi	15435022	ref	NP	hypothetical protein LOC849	186	19484	11.3	0	O	Q	20	0.001	0	0	0.00019	1	4.75E-05	9.5E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2316	1	2.34E-05	0	0	INF		ENSG00000124802	EEF1E1			gi	4758862	ref	NP_0	eukaryotic translation elonga	174	19811	8.6	0	O	Q	16	0.117	0	0	0	0	0	0	0.000188	1	4.69E-05	9.38E-05	0	0	0	0	0	0	0	0	0	0	0	0	GST_C family, Gamma	aminoacyl-tRNA synthetase	protein binding
2317	1	2.34E-05	0	0	INF		ENSG00000165101	ANAPC7			gi	7705334	ref	NP_0	anaphase promoting complex	565	65177	5.8	0	O	S	31	0.002	0	0	0.000187	1	4.69E-05	9.38E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Tetratricopeptide repeat	anaphase-promoting complex	binding
2318	1	2.34E-05	0	0	INF		ENSG00000998101	MTAP			gi	47132622	ref	NP_	5'-methylthioadenosine phos	283	31236	7.2	0	O	Q	20	0.01	0	0	0.000187	1	4.68E-05	9.36E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Phosphorylase family 2;		Phosphorylase activity [pmid
2319	1	2.32E-05	0	0	INF		ENSG00000164077	KCMF1			gi	4882178	ref	NP_0	potassium channel modulato	381	41945	5.7	0	O	Q	20	0	0	0	0.000185	1	4.64E-05	9.27E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Drought induced 19 protein	intracellular; nucleus	ion channel activity; metal
2320	1	2.31E-05	0	0	INF		ENSG00000158019	BRK			gi	13617110	ref	NP_	hypothetical protein LOC52	415	45974	6.1	0	O	Q	26	0.002	0	0	0	0	0	0	0.000185	1	4.63E-05	9.25E-05	0	0	0	0	0	0	0	0	0	0	0	0	Brain and reproductive	cytoplasm [pmid 15465831];	peroxisome targeting
2321	1	2.31E-05	0	0	INF		ENSG00000056558	TRAF1			gi	5032193	ref	NP_0	TNF receptor-associated fact	416	46164	6.1	0	O	Q	28	0	0	0	0	0	0	0	0.000185	1	4.61E-05	9.23E-05	0	0	0	0	0	0	0	0	0	0	0	0	Tumor Necrosis Factor	cytoplasm [pmid 8069916]	protein binding [pmid
2322	1	2.3E-05	0	0	INF		ENSG00000014401	MPA2			gi	7657236	ref	NP_0	inositol(myo)-1(or 4)-monopt	288	31321	8.6	0	O	Q	22	0.006	0	0	0.000184	1	4.6E-05	9.2E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MPase, inositol		hydrolase activity; inositol or
2323	1	2.29E-05	0	0	INF		ENSG00000172172	MRPL13			gi	14165270	ref	NP_	mitochondrial ribosomal prot	178	20692	9.1	0	O	Q	24	0.012	0	0	0	0	0	0	0.000183	1	4.58E-05	9.17E-05	0	0	0	0	0	0	0	0	0	0	0	0	50S ribosomal protein L13;	intracellular; mitochondrial	structural constituent of
2324	1	2.29E-05	0	0	INF		ENSG00000128708	HAT1			gi	4504341	ref	NP_	histone acetyltransferase 1 is	419	49513	5.7	0	O	Q	18	0	0	0	0	0	0	0	0.000183	1	4.58E-05	9.16E-05	0	0	0	0	0	0	0	0	0	0	0	0	Outer membrane protein	nucleus [pmid 9427644]	acyltransferase activity;
2325	1	2.28E-05	0	0	INF		ENSG00000160049	CFA			gi	4713200	ref	NP_0	complement factor, 4B [Hom	268	29411	4.6	0	O	S	21	0	0	0	0	0	0	0	0	0	4.57E-05	9.15E-05	0	0	0	0	0	0	0	0	0	0	0	0	CIDE-N domain. This	cytosol [pmid 9109473];	caspase-activated
2326	1	2.28E-05	0	0	INF		ENSG00000168530	MYL1			gi	17986273	ref	NP_	fast skeletal myosin alkali ligh	194	21145	5	0	O	Q	32	0.44	0	0	0.000182	1	4.55E-05	9.11E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	EF-hand, calcium binding	muscle myosin; myosin	calcium ion binding; motor
2327	1	2.27E-05	0	0	INF		ENSG00000115725	PRKAR1			gi	19923359	ref	NP_	IMAP-associated protein kinase	270	30382	6.4	0	O	Q	21	0	0	0	0.000181	1	4.54E-05	9.07E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5'-AMP-activated protein		hydrolase activity,
2328	1	2.26E-05	0	0	INF		ENSG00000103490	PYCARD			gi	10835256	ref	NP_	PYD and CARD domain cont	195	21627	6.4	0	O	Q	18	0	0	0	0.000181	1	4.53E-05	9.06E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PAAD/DAPIN/Pyrin domain	cytoplasm [pmid 12019269];	caspase activator activity
2329	1	2.25E-05	0	0	INF		ENSG00000196502	SULT1A1			gi	29540539	ref	NP_	sulfotransferase family, cytos	295	34165	6.6	0	O	Q	37	0	0	0	0.00018	1	4.49E-05	8.98E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Sulfotransferase domain.		aryl sulfotransferase activity;
2330	1	2.23E-05	0	0	INF		ENSG00000157870	C1orf93			gi	27487990	ref	NP_	hypothetical protein LOC127	198	21223	6.7	0	O	Q	21	0.064	0	0	0.000178	1	4.46E-05	8.92E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Peroxisodon (PRX)-like 2		
2331	1	2.23E-05	0	0	INF		gi|169172079|ref|XP_	LOC100134165			gi|169172079|ref|XP	PREDICTED: hypothetical pr	393	42353	11.5	0	O	Q	18	0.255	0	0.000178	0	0	0	1	4.45E-05	8.9E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2332	1	2.2E-05	0	0	INF		ENSG00000169479	MED6			gi	15502019	ref	NP_	mediator complex subunit 6 [	301	33969	9.1	0	O	Q	23	0.001	0	0	0.000176	1	4.4E-05	8.8E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2333	1	2.2E-05	0	0	INF		ENSG00000120314	WDR55			gi	38327642	ref	NP_	WD repeat domain 55 [Hom	383	42123	4.9	0	O	Q	0	0	0	0	0	0	0	0	0.000176	1	4.39E-05	8.79E-05	0	0	0	0	0	0	0	0	0	0	0	0	WD40 domain, found in a		
2334	1	2.19E-05	0	0	INF		ENSG00000130489	SCO2			gi	15379313	ref	NP	cytochrome oxidase deficient	266	29810	8.9	0	O	Q	40	0.298	0	0.000175	0	0	0	1	4.38E-05	8.77E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2335	1	2.17E-05	0	0	INF		ENSG00000103723	AP3B2			gi	34482047	ref	NP_	adaptor-related protein comp	1082	119050	5.6	0	O	Q	16	0	0	0	0.000174	1	4.34E-05	8.68E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Adaptin N terminal region.	coated pit; COPI-coated	binding; transporter activity
2336	1	2.16E-05	0	0	INF		ENSG00000108836	PABPN1			gi	4758876	ref	NP_0	poly(A) binding protein, nucle	306	32749	5.1	0	O	S	19	0.994	0	0	0.000173	1	4.33E-05	8.66E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	RNA recognition motif;	nucleus	nucleotide binding; protein
2337	1	2.16E-05	0	0	INF		ENSG00000102837	OLFM4			gi	32113593	ref	NP_0	olfactomedin 4 precursor [Ho	510	57280	5.7	0	O	S	21	1	0	0	0.000173	1	4.33E-05	8.66E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Recf/RecN/SMC N	membrane	latrotoxin receptor activity
2338	1	2.15E-05	0	0	INF		ENSG00000133742	CA1			gi	34520517	ref	NP_0	carbonic anhydrase I [Homo	261	28870	7.1	0	O	S	0	0	0	0	0	0	0	0	0.000172	1	4.3E-05	8.6E-05	0	0	0	0	0	0	0	0	0	0	0	0	Carbonic anhydrase alpha,	cytoplasm	carbonate dehydratase
2339	1	2.15E-05	0	0	INF		ENSG00000116096	SPR			gi	4507185	ref	NP_0	sepiapterin reductase (7,8-dih	261	28048	6	0	O	S	41	0.924	0	0	0	0	0	0	0.000172	1	4.3E-05	8.6E-05	0	0	0	0	0	0	0	0	0	0	0	0	short chain dehydrogenase		aldo-keto reductase activity
2340	1	2.15E-05	0	0	INF		ENSG00000229223	WDR26			gi	55743153	ref	NP_0	WD repeat domain 26 [Homo	514	58682	6.2	0	O	Q	0	0	0	0	0.000172	1	4.3E-05	8.59E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	WD40 domain, found in a		
2341	1	2.11E-05	0	0	INF		ENSG00000196212	COPS8			gi	5729779	ref	NP_0	COPS signalosome subunit 8	209	23226	5.4	0	O	Q	18	0.001	0	0	0.000169	1	4.23E-05	8.45E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		nucleus [pmid 8689678];	racemase and epimerase
2342	1	2.07E-05	0	0	INF		ENSG00000174425	ZNF581			gi	7705495	ref	NP_0	zinc finger protein 581 [Hom	197	22010	8.8	0	O	Q	20	0.028	0	0	0	0	0	0	0.000166	1	4.14E-05	8.28E-05	0	0	0	0	0	0	0	0	0	0	0	0		intracellular; nucleus	DNA binding; metal ion
2343	1	2.06E-05	0	0	INF		ENSG00000178115	PEDX2			gi	32189302	ref	NP_	peroxiredoxin 2 isoform a [Ho	198	21892	6.7	0	O	Q	31	0	0	0	0	0	0	0	0.000161	1	4.12E-05	8.24E-05	0	0	0	0	0	0	0	0	0	0	0	0	Peroxiredoxin (PRX) family,	cytoplasm [pmid 16130169]	peroxiredoxine activity;
2344	1	2.04E-05	0	0	INF		ENSG00000078140	HIP2			gi	4885417	ref	NP_0	ubiquitin-conjugating enzyme	200	22407	5.4	0	O	Q	0	0	0	0	0	0	0	0	0.000163	1	4.08E-05	8.16E-05	0	0	0	0	0	0	0	0	0	0	0	0	Ubiquitin Associated	nucleus	ligase activity; transcription
2345	1	0.00002	0	0	INF		ENSG00000222277	C20orf43			gi	7705483	ref	NP_0	hypothetical protein LOC519	306	33823	8.6	0	O	Q	0	0	0	0	0	0	0	0	0.00016	1	0.00004	0.00008	0	0	0	0	0	0	0	0	0	0	0	0	Protein of unknown		
2346	1	2E-05	0	0	INF		ENSG00000142208	AKT1			gi	22241015	ref	NP_	v-akt murine thymoma viral o	480	55686	6.1	0	O	S	0	0	0	0	0	0	0	0	0	0.00016	1	4E-05	8E-05	0	0	0	0	0	0	0	0	0	0	0	AKt pleckstrin homology	cytoplasm; nucleus	ATP binding; identical protein
2347	1	1.99E-05	0	0	INF		ENSG00000107362	EAM108B1			gi	7105160	ref	NP_	family with sequence similari	293	32823	6.8	0	O	S	21	0.528	0	0.000159	0	0	0	1	3.98E-05	7.96E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Hydrolases of the		
2348	1	1.96E-05	0	0	INF		ENSG00000167525	EAX2			gi	5031653	ref	NP_0	breast carcinoma amplified s	225	26131	8.8	0	O	S	16	0.074	0	0	0.000157	1	3.93E-05	7.86E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Breast carcinoma amplified	nucleus; spliceosome complex	RNA splicing factor activity,
2349	1	1.96E-05	0	0	INF		ENSG00000134202	GSTM3			gi	23065552	ref	NP_	glutathione S-transferase M3	225	26560	5.5	0	O	S	21	0.008	0	0	0.000157	1	3.93E-05	7.85E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	GST_N family, Class Mu		glutathione transferase
2350	1	1.96E-05	0	0	INF		ENSG00000163960	UBXN7			gi	14994446	ref	NP_	UBX domain containing 7 [Ho	489	54862	5.2	0	O	Q	26	0.142	0	0	0	0	0	0	0.000157	1	3.93E-05	7.85E-05	0	0	0	0	0	0	0	0	0	0	0	0			
2351	1	1.96E-05	0	0	INF		ENSG00000137342	C4orf108			gi	21367776	ref	NP_0	hypothetical protein LOC557	490	54739	8.6	0	O	Q	0	0	0	0	0	0	0	0	0.000157	1	3.92E-05	7.85E-05	0	0	0	0	0	0	0	0	0	0	0	0	Adaptor complexes medium	clathrin vesicle coat	
2352	1	1.94E-05	0	0	INF		ENSG00000131462	TUBG1			gi	31543831	ref	NP_0	tubulin, gamma 1 [Homo sap	451	51170	6.1	0	O	Q	17	0.001	0	0.000155	0	0	0	1	3.88E-05	7.76E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Gamma-tubulin is a	centrosome [pmid 9566969];	GTP binding; GTPase
2353	1	1.94E-05	0	0	INF		ENSG00000193235	C9orf11			gi	89235579	ref	NP_0	chromosome 20 open readin	228	28740	5	0	O	S	0	0	0	0	0.000155	1	3.87E-05	7.75E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	LisH. The LisH (lis	nucleus	
2354	1	1.92E-05	0	0	INF		ENSG00000105298	C10orf29			gi	28272314	ref	NP	chromosome 19 open readin	758	88702	9.1	0	O	Q	0	0	0	0.000154	0	0	0	1	3.85E-05	7.69E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2355	1	1.92E-05	0	0	INF		ENSG00000111731	KIAA0528			gi	29789060	ref	NP_0	hypothetical protein LOC984	1000	110447	5.7	0	O	Q	22	0	0	0	0.000154	1	3.84E-05	7.68E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Protein kinase C conserved	membrane; synaptic vesicle	transporter activity
2356	1	1.91E-05	0	0	INF		ENSG00000167106	CAMK1G			gi	30387611	ref	NP_0	cell division cycle 2-like 6 (CT	502	56802	8.5	0	O	Q	0	0	0	0	0	0	0	0	0	0	3.82E-05	7.65E-05	0	0	0	0	0	0	0	0	0	0	0	0	Serine/Threonine protein		ATP binding; nucleotide
2357	1	1.91E-05	0	0	INF		ENSG00000160741	CRTC2			gi	32171215	ref	NP_0	CREB regulated transcription	693	73302	7.1	0	O	Q	17	0.005	0	0	0.000153	1	3.82E-05	7.65E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2358	1	1.91E-05	0	0	INF		ENSG00000131238	PPT1			gi	4506031	ref	NP_0	palmitoyl-protein thioesterase	306	34193	6.5	0	O	S	21	1	0	0.000152	0	0	0	1	3.81E-05	7.62E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Palmitoyl protein	lysosome	hydrolase activity; palmitoyl-
2359	1	1.89E-05	0	0	INF		ENSG00000198828	KIAA0586			gi	21068329	ref	NP_	small and compound eye	741	83533	6.7	0	O	Q	18	0	0	0	0	0	0	0	0.000151	1	3.78E-05	7.57E-05	0	0	0	0	0	0	0	0	0	0	0	0	Ankyrin repeats, ankyrin		ATP binding;
2360	1	1.89E-05	0	0	INF		ENSG00000173542	MOBKL1A			gi	27735029	ref	NP_	MOB1, Mps One Binder kina	216	25091	6.7	0	O	Q	0	0	0	0	0	0	0	0	0.000151	1	3.78E-05	7.56E-05	0	0	0	0	0	0	0	0	0	0	0	0	Mob1/phocein family. Mob1	cytoplasm [pmid 15067004];	kinase activator activity
2361	1	1.88E-05	0	0	INF		ENSG00000166543	THUMPD1			gi	34276024	ref	NP_	THUMP domain containing 1	353	39315	7.8	0	O	S	34	1	0	0.000151	0	0	0	1	3.75E-05	7.51E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	THUMP domain. The		
2362	1	1.87E-05	0	0	INF		ENSG00000139496	NUPL1			gi	30102928	ref	NP_	nucleoporin like 1 isoform a [	599	60897	9.3	0	O	S	20	0.758	0	0	0	0	0	0	0.000151	1	3.75E-05	7.49E-05	0	0	0	0	0	0	0	0	0	0	0	0	PBC domain. The PBC	integral to membrane;	porin activity; serine-type
2363	1	1.86E-05	0	0	INF		ENSG00000181873	C1orf59			gi	58197556	ref	NP_	hypothetical protein LOC200	356	38155	9.8	0	O	S	16	0.567	0	0	0.000149	1	3.72E-05	7.44E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Glycine cleavage T-protein	cytoplasm	aminomethyltransferase
2364	1	1.86E-05	0	0	INF		ENSG00000167582	UCHL5			gi	7706753	ref	NP_0	ubiquitin C-terminal hydrolas	329	37607	5.3	0	O	Q	20	0	0	0	0	0	0	0	0.000149	1	3.72E-05	7.44E-05	0	0	0	0	0	0	0	0	0	0	0	0	Ubiquitin carboxyl-terminal	cytosol; intracellular; protein	cysteine peptidase
2365	1	1.86E-05	0	0	INF		ENSG00000041802	LSG1			gi	14149720	ref	NP_0	large subunit GTPase 1 hom	658	75226	6.3	0	O	Q	27	0.009	0	0	0	0	0	0	0.000149	1	3.72E-05	7.44E-05	0	0	0	0	0	0	0	0	0	0	0	0	HSR1/MMR1. Human	endoplasmic reticulum [pmid	GTP binding
2366	1	1.86E-05	0	0	INF		ENSG00000143383	PRUNE			gi	24309263	ref	NP_0	prune homolog [Homo sapiens	453	50200	5.5	0	O	Q	49	0.001	0	0	0	0	0	0	0.000149	1	3.71E-05	7.42E-05	0	0	0	0	0	0	0	0	0	0	0	0	DHHA2 domain. This	cytoplasm	pyrophosphatase activity
2367	1	1.84E-05

rk	NEs detected # out of 10 runs	NEs dNSAF_AVG	MMs detected # out of 8 runs	MMs dNSAF_AVG	NEs:MMs	Detected in Mitochondria	ORTHO_GROUP	GENE_NAME	NET_NAME	Location & Gene Expression Data	Locus	Description	Length	MW	pI	PredHel	TMHMM_Topology	SIGNALP_HMM_TYPE (S= signal; A= Anchor; Q= none)	SIGNALP_HMM_POS	SIGNALP_HMM_SPROB
2451	1	1.13E-05	0	0	INF		ENSG00000129465:E	RIPK3			gi|40254844|ref|NP_	receptor-interacting serine-th	518	56887	6.5	0	o	Q	18	0.002
2452	1	1.12E-05	0	0	INF		ENSG00000106348:E	IMPDH1			gi|156616279|ref|NP	inosine monophosphate deh	589	63253	6.8	0	o	Q	18	0.017
2453	1	1.12E-05	0	0	INF		ENSG00000198945:E	L3MBTL3			gi|55770870|ref|NP_	l(3)mbt-like 3 isoform a [Hom	780	88337	6.5	0	o	Q	0	0
2454	1	1.11E-05	0	0	INF		ENSG00000102172:E	SMS			gi|21264341|ref|NP_	spermine synthase [Homo sa	366	41268	5	0	o	Q	20	0.064
2455	1	1.1E-05	0	0	INF		ENSG00000164068:E	RNF123			gi|37588869|ref|NP_	ring finger protein 123 [Homo	1314	148514	6.7	0	o	Q	22	0
2456	1	1.09E-05	0	0	INF		ENSG00000135341:E	MAP3K7			gi|21735562|ref|NP_	mitogen-activated protein kin	606	67196	7.1	0	o	Q	16	0.239
2457	1	1.09E-05	0	0	INF		ENSG00000111641:E	NOL1			gi|76150625|ref|NP_	nucleolar protein 1, 120kDa [	808	88973	9.2	0	o	Q	37	0
2458	1	1.07E-05	0	0	INF		ENSG00000097021:E	ACOT7			gi|32528282|ref|NP_	acyl-CoA thioesterase 7 isofo	380	41796	8.5	0	o	Q	37	0.301
2459	1	1.06E-05	0	0	INF		ENSG00000136100:E	VPS36			gi|71051598|ref|NP_	vacuolar protein sorting 36 [H	386	43817	7.2	0	o	Q	17	0.017
2460	1	1.05E-05	0	0	INF		ENSG00000141376:E	BCAS3			gi|153218595|ref|NP	breast carcinoma amplified s	913	99681	6.6	0	o	Q	29	0
2461	1	1.05E-05	0	0	INF		ENSG00000125149:E	C16orf70			gi|21361956|ref|NP_	lin-10 [Homo sapiens]	422	47525	7.7	0	o	Q	33	0
2462	1	1.04E-05	0	0	INF		ENSG00000116221:E	MRPL37			gi|22547134|ref|NP_	mitochondrial ribosomal prote	423	48118	8.6	0	o	S	25	0.687
2463	1	1.04E-05	0	0	INF		ENSG00000136560:E	TANK			gi|19743569|ref|NP_	TRAF interacting protein TAN	425	47816	5.7	0	o	Q	0	0
2464	1	1.01E-05	0	0	INF		ENSG00000146826:E	C7orf43			gi|27363480|ref|NP_	hypothetical protein LOC552	580	62597	8.9	0	o	Q	23	0.001
2465	1	1E-05	0	0	INF		ENSG00000093000:E	NUP50			gi|24497447|ref|NP_	nucleoporin 50kDa isoform a	440	46863	8.3	0	o	Q	55	0
2466	1	1E-05	0	0	INF		ENSG00000106524:E	ANKMY2			gi|28461129|ref|NP_	ankyrin repeat and MYND do	441	49299	6.3	0	o	Q	0	0
2467	1	9.93E-06	0	0	INF		ENSG00000136877:E	FPGS			gi|66932984|ref|NP_	folylpolyglutamate synthase i	587	64609	7.9	0	o	S	22	0.999
2468	1	9.9E-06	0	0	INF		ENSG00000141101:E	NOB1			gi|7661532|ref|NP_0	nin one binding protein [Hom	412	46675	7.2	0	o	Q	21	0.023
2469	1	9.89E-06	0	0	INF		ENSG00000141252:E	VPS53			gi|21361728|ref|NP_	vacuolar protein sorting 53 [H	670	76352	6	0	o	Q	26	0
2470	1	9.82E-06	0	0	INF		ENSG00000174842:E	GLMN			gi|16933537|ref|NP_	glomulin [Homo sapiens]	594	68208	5.3	0	o	Q	0	0
2471	1	9.8E-06	0	0	INF		ENSG00000132005:E	RFX1			gi|52486543|ref|NP_	regulatory factor X1 [Homo s	979	104728	6.3	0	o	Q	28	0
2472	1	9.71E-06	0	0	INF		ENSG00000108578:E	BLMH			gi|4557367|ref|NP_0	bleomycin hydrolase [Homo	455	52562	6.3	0	o	Q	28	0.017
2473	1	9.68E-06	0	0	INF		ENSG00000035687:E	ADSS			gi|34577063|ref|NP_	adenylosuccinate synthase [	456	50097	6.6	0	o	Q	19	0.003
2474	1	9.61E-06	0	0	INF		ENSG00000172009:E	THOP1			gi|4507491|ref|NP_0	thimet oligopeptidase 1 [Hom	689	78840	6	0	o	Q	18	0.008
2475	1	9.59E-06	0	0	INF		ENSG00000154822:E	PLCL2			gi|24308011|ref|NP_	phospholipase C-like 2 [Hom	1001	113749	6.3	0	o	Q	21	0
2476	1	9.58E-06	0	0	INF		ENSG00000198087:E	CD2AP			gi|11321634|ref|NP_	CD2-associated protein [Hon	639	71451	6.4	0	o	Q	0	0
2477	1	9.47E-06	0	0	INF		ENSG00000135686:E	C16orf44			gi|31542246|ref|NP_	hypothetical protein LOC797	616	69896	6.2	0	o	Q	0	0
2478	1	9.45E-06	0	0	INF		ENSG00000175216:E	CKAP5			gi|57164942|ref|NP_	colonic and hepatic tumor ov	2032	225493	7.8	0	o	Q	0	0
2479	1	9.4E-06	0	0	INF		ENSG00000033800:E	PIAS1			gi|7706637|ref|NP_0	protein inhibitor of activated	651	71836	7.3	0	o	Q	27	0.001
2480	1	9.28E-06	0	0	INF		ENSG00000135655:E	USP15			gi|14149627|ref|NP_	ubiquitin specific peptidase 1	952	109297	5.2	0	o	Q	30	0
2481	1	9.21E-06	0	0	INF		ENSG00000089336:E	KIAA0841			gi|149944680|ref|NP	hypothetical protein LOC233	633	71683	8.5	0	o	Q	25	0.001
2482	1	9.19E-06	0	0	INF		ENSG00000115977:E	AAK1			gi|148277037|ref|NP	AP2 associated kinase 1 [Ho	961	103885	6.5	0	o	Q	30	0.003
2483	1	9.18E-06	0	0	INF		ENSG00000113240:E	CLK4			gi|10190706|ref|NP_	CDC-like kinase 4 [Homo sa	481	57492	8.7	0	o	Q	0	0
2484	1	8.97E-06	0	0	INF		ENSG00000113282:E	CLINT1			gi|7661968|ref|NP_0	epsin 4 [Homo sapiens]	625	68259	6.4	0	o	Q	0	0
2485	1	8.83E-06	0	0	INF		ENSG00000166037:E	CEP57			gi|45430055|ref|NP_	translokin [Homo sapiens]	500	57089	9.3	0	o	S	20	0.669
2486	1	8.8E-06	0	0	INF		ENSG00000165006:E	UBAP1			gi|8394499|ref|NP_0	ubiquitin associated protein 1	502	55084	5.1	0	o	Q	18	0
2487	1	8.79E-06	0	0	INF		ENSG00000146376:E	ARHGAP18			gi|39932589|ref|NP_	Rho GTPase activating prote	663	74977	6.4	0	o	Q	15	0.035
2488	1	8.77E-06	0	0	INF		ENSG00000103047:E	TMCO7			gi|153791502|ref|NP	transmembrane and coiled-c	1094	120747	6.1	0	o	Q	36	0.01
2489	1	8.67E-06	0	0	INF		ENSG00000106683:E	LIMK1			gi|4505001|ref|NP_0	LIM domain kinase 1 [Homo	647	72585	7	0	o	Q	17	0.055
2490	1	8.57E-06	0	0	INF		ENSG00000101654:E	RNMT			gi|4506567|ref|NP_0	RNA (guanine-7-) methyltran	476	54844	6.6	0	o	Q	0	0
2491	1	8.57E-06	0	0	INF		ENSG00000068394:E	GPKOW			gi|15811782|ref|NP_	G patch domain and KOW m	476	52229	6.2	0	o	Q	23	0.316
2492	1	8.54E-06	0	0	INF		ENSG00000138646:N	HERC5			gi|110825982|ref|NP	hect domain and RLD 5 [Hon	1024	116852	7.6	0	o	S	48	0.84
2493	1	8.51E-06	0	0	INF		ENSG00000130935:E	NOL11			gi|21361468|ref|NP_	nucleolar protein 11 [Homo s	719	81124	6.1	0	o	Q	25	0.201
2494	1	8.47E-06	0	0	INF		ENSG00000103043:E	VAC14			gi|39780552|ref|NP_	Vac14 homolog [Homo sapie	782	87973	6.1	0	o	Q	18	0
2495	1	8.35E-06	0	0	INF		ENSG00000072803:E	FBXW11			gi|48928046|ref|NP_	F-box and WD repeat domai	529	60898	6.7	0	o	Q	0	0
2496	1	8.31E-06	0	0	INF		ENSG00000147324:E	MFHAS1			gi|110825984|ref|NP	malignant fibrous histiocytom	1052	116950	7.9	0	o	S	46	0.892
2497	1	8.26E-06	0	0	INF		ENSG00000100784:E	RPS6KA5			gi|32528295|ref|NP_	ribosomal protein S6 kinase,	802	89865	7.1	0	o	Q	19	0.001
2498	1	8.24E-06	0	0	INF		ENSG00000124383:E	MPHOSPH10			gi|31317305|ref|NP_	M-phase phosphoprotein 10	681	78864	4.9	0	o	Q	24	0.003
2499	1	8.24E-06	0	0	INF		ENSG00000070367:E	EXOC5			gi|5730037|ref|NP_0	SEC10 protein [Homo sapien	708	81853	6.7	0	o	Q	0	0
2500	1	8.22E-06	0	0	INF		ENSG00000164951:E	PPM2C			gi|45439339|ref|NP_	pyruvate dehydrogenase pho	537	61054	6.7	0	o	Q	18	0.025
2501	1	8.12E-06	0	0	INF		ENSG00000155034:E	FBXL18			gi|157426875|ref|NP	F-box and leucine-rich repea	718	78919	8.3	0	o	Q	0	0
2502	1	8.05E-06	0	0	INF		ENSG00000004139:E	SARM1			gi|154090976|ref|NP	sterile alpha and TIR motif co	724	79388	6.6	0	o	Q	20	0.282
2503	1	7.98E-06	0	0	INF		ENSG00000140848:E	CPNE2			gi|30181236|ref|NP_	copine II [Homo sapiens]	548	61190	6.1	0	o	Q	25	0.041
2504	1	7.86E-06	0	0	INF		ENSG00000127804:E	METT10D			gi|122114654|ref|NP	methyltransferase 10 domain	562	63621	7.9	0	o	Q	0	0
2505	1	7.83E-06	0	0	INF		ENSG00000075651:E	PLD1			gi|4505873|ref|NP_0	phospholipase D1, phosphatic	1074	124184	8.8	0	o	Q	20	0
2506	1	7.83E-06	0	0	INF		ENSG00000039650:E	PNKP			gi|31543419|ref|NP_	polynucleotide kinase 3'-phos	521	57076	8.5	0	o	Q	31	0.002
2507	1	7.82E-06	0	0	INF		ENSG00000138399:E	FASTKD1			gi|31377837|ref|NP_	FAST kinase domains 1 [Hor	847	97367	7.7	0	o	Q	21	0.085
2508	1	7.75E-06	0	0	INF		ENSG00000124570:E	SERPINB6			gi|41152086|ref|NP_	serine (or cysteine) proteinas	376	42622	5.3	0	o	Q	21	0.004
2509	1	7.73E-06	0	0	INF		ENSG00000015171:E	ZMYND11			gi|47078243|ref|NP_	zinc finger, MYND domain co	528	61830	8.3	0	o	Q	39	0.001
2510	1	7.64E-06	0	0	INF		ENSG00000168297:E	PXK			gi|31543452|ref|NP_	PX domain containing serine	578	64950	9.3	0	o	Q	30	0.004
2511	1	7.6E-06	0	0	INF		ENSG00000065883:E	CDC2L5			gi|145309300|ref|NP	cell division cycle 2-like 5 iso	1452	158434	9.7	0	o	Q	19	0.014
2512	1	7.56E-06	0	0	INF		ENSG00000156697:E	UTP14A			gi|21361348|ref|NP_	UTP14, U3 small nucleolar ri	771	87978	7.9	0	o	Q	17	0.072
2513	1	7.5E-06	0	0	INF		ENSG00000178252:E	WDR6			gi|11072093|ref|NP_	WD repeat domain 6 protein	1121	121724	6.9	0	o	Q	29	0.017
2514	1	7.5E-06	0	0	INF		ENSG00000149231:E	CCDC82			gi|19923844|ref|NP_	coiled-coil domain containing	544	64002	5	0	o	Q	0	0
2515	1	7.46E-06	0	0	INF		ENSG00000170242:E	USP47			gi|71774197|ref|NP_	ubiquitin specific protease 47	1287	147222	5.1	0	o	Q	0	0
2516	1	7.43E-06	0	0	INF		ENSG00000196843:E	ARID5A			gi|47078224|ref|NP_	AT rich interactive domain 5A	594	64074	9.2	0	o	Q	0	0
2517	1	7.34E-06	0	0	INF		ENSG00000066557:E	LRRC40			gi|21361633|ref|NP_	leucine rich repeat containing	602	68250	6.4	0	o	Q	21	0
2518	1	7.29E-06	0	0	INF		ENSG00000164306:E	CCDC111			gi|22749373|ref|NP_	coiled-coil domain containing	560	64412	5.3	0	o	Q	0	0
2519	1	7.25E-06	0	0	INF		ENSG00000167721:E	TSR1			gi|39780588|ref|NP_	TSR1, 20S rRNA accumulati	804	91810	7.4	0	o	Q	0	0
2520	1	7.2E-06	0	0	INF		ENSG00000198522:E	ZNF512			gi|40217790|ref|NP_	zinc finger protein 512 [Hom	567	64682	9.8	0	o	Q	23	0.002
2521	1	7.2E-06	0	0	INF		ENSG00000100949:E	RABGGTA			gi|53828918|ref|NP_	Rab geranylgeranyltransfera	567	65072	5.7	0	o	Q	0	0
2522	1	7.03E-06	0	0	INF		ENSG00000165819:E	METTL3			gi|21361827|ref|NP_	methyltransferase like 3 [Hor	580	64474	6.4	0	o	Q	0	0
2523	1	7.03E-06	0	0	INF		ENSG00000129691:E	ASH2L			gi|157412280|ref|NP	ash2-like isoform a [Homo sa	628	68723	5.7	0	o	Q	28	0.011
2524	1	7.03E-06	0	0	INF		ENSG00000178996:E	SNX18			gi|157057543|ref|NP	sorting nexin associated golg	628	68895	5.7	0	o	Q	0	0
2525	1	6.88E-06	0	0	INF		ENSG00000149262:E	INTS4			gi|50086624|ref|NP_	integrator complex subunit 4	963	108171	6.4	0	o	Q	0	0
2526	1	6.82E-06	0	0	INF		ENSG00000182511:E	FES			gi|4503687|ref|NP_0	V-FES feline sarcoma viral/V	822	93497	6.7	0	o	Q	18	0.001
2527	1	6.73E-06	0	0	INF		ENSG00000204120:E	GIGYF2			gi|156766043|ref|NP	trinucleotide repeat containin	1299	150070	5.5	0	o	Q	33	0.009
2528	1	6.64E-06	0	0	INF		ENSG00000118898:E	PPL			gi|45439327|ref|NP_	periplakin [Homo sapiens]	1756	204676	5.6	0	o	Q	0	0
2529	1	6.64E-06	0	0	INF		ENSG00000164169:E	PRMT10			gi|40538772|ref|NP_	protein arginine methyltransf	845	94501	5.2	0	o	Q	47	0
2530	1	6.6E-06	0	0	INF		ENSG00000100226:E	GTPBP1			gi|82546879|ref|NP_	GTP binding protein 1 [Homo	669	72454	8.3	0	o	Q	32	0.012
2531	1	6.59E-06	0	0	INF		ENSG00000167674:E	AC011498.7-2			gi|14249158|ref|NP_	hepatoma-derived growth fac	670	74230	7.5	0	o	Q	18	0
2532	1	6.58E-06	0	0	INF		ENSG00000119778:E	ATAD2B			gi|153792536|ref|NP	ATPase family, AAA domain	1458	164913	6.8	0	o	Q	27	0.002
2533	1	6.56E-06	0	0	INF		ENSG00000162227:E	TAF6L			gi|5453844|ref|NP_0	TAF6-like RNA polymerase I	622	67814	9	0	o	Q	38	0
2534	1	6.46E-06	0	0	INF		ENSG00000119203:E	CPSF3			gi|7706427|ref|NP_0	cleavage and polyadenylatio	684	77486	5.6	0	o	Q	21	0
2535	1	6.44E-06	0	0	INF		ENSG00000196642:E	C9orf86			gi|38201704|ref|NP_	Rab-like GTP-binding protein	686	74831	5.1	0	o	Q	23	0
2536	1	6.41E-06	0	0	INF		ENSG00000173020:E	ADRBK1			gi|148539876|ref|NP	beta adrenergic receptor kina	689	79574	7.3	0	o	Q	23	0.005
2537	1	6.31E-06	0	0	INF		ENSG00000148634:E	HERC4			gi|37620181|ref|NP_	hect domain and RLD 4 isofo	1049	117697	6.3	0	o	Q	16	0.014
2538	1	6.31E-06	0	0	INF		ENSG00000095787:E	WAC			gi|18379328|ref|NP_	WW domain-containing adap	647	70724	9.5	0	o	Q	0	0
2539	1	6.2E-06	0	0	INF		ENSG00000163507:E	KIAA1524			gi|24308239|ref|NP_	p90 autoantigen [Homo sapie	905	102201	6.2	0	o	Q	17	0.048
2540	1	6.19E-06	0	0	INF		ENSG00000196792:E	STRN3			gi|142976675|ref|NP	nuclear autoantigen isoform	713	77745	5.3	0	o	Q	16	0.003
2541	1	6.12E-06	0	0	INF		ENSG00000095383:E	TBC1D2			gi|62198225|ref|NP_	TBC1 domain family, membe	917	104165	6.5	0	o	Q	0	0
2542	1	6.09E-06	0	0	INF		ENSG00000100106:E	TRIOBP			gi|88501738|ref|NP_	TRIO and F-actin binding pro	2365	261373	8.5	0	o	Q	0	0
2543	1	6.08E-06	0	0	INF		ENSG00000196865:E	NHLRC2			gi|42476013|ref|NP_	NHL repeat containing 2 [Ho	726	79444	5.6	0	o	Q	27	0.495
2544	1	6.07E-06	0	0	INF		ENSG00000164308:N	ERAP2			gi|11641261|ref|NP_	endoplasmic reticulum amino	960	110462	6.7	0	o	Q	38	0.212
2545	1	6.04E-06	0	0	INF		ENSG00000110514:E	MADD			gi|18860862|ref|NP_	MAP-kinase activating death	1588	176586	6.1	0	o	Q	30	0.029
2546	1	6.01E-06	0	0	INF		ENSG00000122299:E	ZC3H7A			gi|27414497|ref|NP_	zinc finger CCCH-type conta	971	110538	7.3	0	o	Q	0	0
2547	1	5.78E-06	0	0	INF		ENSG00000005156:E	LIG3			gi|73747829|ref|NP_	ligase III, DNA, ATP-depende	1009	112907	9	0	o	Q	16	0.035
2548	1	5.77E-06	0	0	INF		ENSG00000033030:E	ZCCHC8			gi|38044290|ref|NP_	zinc finger, CCHC domain co	707	78577	4.9	0	o	Q	0	0
2549	1	5.71E-06	0	0	INF		ENSG00000138758:E	SEPT11			gi|8922712|ref|NP_0	septin 11 [Homo sapiens]	429	49398	6.8	0	o	Q	29	0
2550	1	5.66E-06	0	0	INF		ENSG00000167447:E	C17orf71			gi|47777319|ref|NP_	hypothetical protein LOC551	991	109684	7.7	0	o	Q	25	0.232
2551	1	5.57E-06	0	0	INF		ENSG00000112297:E	AIM1			gi|62988361|ref|NP_	absent in melanoma 1 [Homo	1723	188616	5.9	0	o	Q	28	0
2552	1	5.56E-06	0	0	INF		ENSG00000011451:E	WIZ			gi|151301215|ref|NP	widely-interspaced zinc finge	794	85380	9.1	0	o	Q	16	0.009
2553	1	5.54E-06	0	0	INF		ENSG00000117859:E	OSBPL9			gi|20070331|ref|NP_	oxysterol-binding protein-like	736	83185	6.2	0	o	Q	35	0
2554	1	5.51E-06	0	0	INF		ENSG00000067646:E	LOC100130829			gi|169216333|ref|XP	PREDICTED: hypothetical pr	801	90505	6.1	0	o	Q	0	0
2555	1	5.49E-06	0	0	INF		ENSG00000159459:E	UBR1			gi|28372497|ref|NP_	ubiquitin protein ligase E3 co	1749	200209	6	0	o	Q	0	0
2556	1	5.48E-06	0	0	INF		ENSG00000034063:E	UHRF1			gi|115430233|ref|NP	ubiquitin-like, containing PHD	806	91100	7.4	0	o	Q	21	0.016
2557	1	5.46E-06	0	0	INF		ENSG00000130787:E	HIP1R			gi|48762942|ref|NP_	huntingtin interacting protein-	1068	119388	6.7	0	o	Q	20	0
2558	1	5.44E-06	0	0	INF		ENSG00000198824:E	C13orf8			gi|41281612|ref|NP_	hypothetical protein LOC283	812	89099	8.4	0	o	Q	0	0
2559	1	5.42E-06	0	0	INF		ENSG00000003756:E	RBM5			gi|5032031|ref|NP_0	RNA binding motif protein 5 [	815	92154	6.3	0	o	Q	0	0
2560	1	5.41E-06	0	0	INF		ENSG00000165458:E	INPPL1			gi|4755142|ref|NP_0	inositol polyphosphate phosp	1258	138585	6.5	0	o	Q	16	0.049
2561	1	5.41E-06	0	0	INF		ENSG00000133704:E	IPO8			gi|53759103|ref|NP_	importin 8 [Homo sapiens]	1037	119938	5.2	0	o	Q	22	0
2562	1	5.25E-06	0	0	INF		ENSG00000151148:E	UBE3B			gi|35493959|ref|NP_	ubiquitin protein ligase E3B [	1068	123098	8.2	0	o	Q	19	0.002
2563	1	5.2E-06	0	0	INF		ENSG00000065534:E	MYLK			gi|116008188|ref|NP	myosin light chain kinase iso	1845	203054	6.2	0	o	Q	19	0.013
2564	1	5.09E-06	0	0	INF		ENSG00000147854:E	UHRF2			gi|23312364|ref|NP_	Np95-like ring finger protein [	802	89985	8.2	0	o	Q	0	0
2565	1	5.03E-06	0	0	INF		ENSG00000143631:N	FLG			gi|60097902|ref|NP_	filaggrin [Homo sapiens]	4061	435180	9.2	0	o	Q	20	0
2566	1	4.94E-06	0	0	INF		ENSG00000153107:E	ANAPC1			gi|12056971|ref|NP_	anaphase promoting comple	1944	216498	6.3	0	o	Q	0	0
2567	1	4.79E-06	0	0	INF		ENSG00000184863:E	RBM33			gi|151301053|ref|NP	RNA binding motif protein 33	1170	129986	6.9	0	o	Q	15	0.071
2568	1	4.68E-06	0	0	INF		ENSG00000120685:N	C13orf23			gi|125656155|ref|NP	hypothetical protein LOC802	944	95698	8.9	0	o	Q	0	0
2569	1	4.63E-06	0	0	INF		ENSG00000083799:E	CYLD			gi|109637776|ref|NP	ubiquitin carboxyl-terminal hy	953	107044	5.6	0	o	Q	32	0
2570	1	4.44E-06	0	0	INF		ENSG00000173889:E	PHC3			gi|148612879|ref|NP	polyhomeotic like 3 [Homo sa	995	107480	6.5	0	o	Q	0	0
2571	1	4.34E-06	0	0	INF		ENSG00000090920:E	FCGBP			gi|154146262|ref|NP	Fc fragment of IgG binding p	5405	572021	5.3	0	o	S	22	0.993
2572	1	4.33E-06	0	0	INF		ENSG00000157483:E	MYO1E			gi|55956916|ref|NP_	myosin IE [Homo sapiens]	1108	127062	8.9	0	o	Q	0	0
2573	1	4.22E-06	0	0	INF		ENSG00000171634:N	BPTF			gi|38788260|ref|NP_	bromodomain PHD finger tra	2903	322217	6.4	0	o	Q	23	0.003
2574	1	4.1E-06	0	0	INF		ENSG00000152465:E	NMT2			gi|4758816|ref|NP_0	N-myristoyltransferase 2 [Ho	498	56980	7.6	0	o	Q	0	0
2575	1	3.95E-06	0	0	INF		ENSG00000172716:E	SLFN11			gi|157388965|ref|NP	schlafen family member 11 [H	901	102836	7.8	0	o	Q	16	0
2576	1	3.92E-06	0	0	INF		ENSG00000197323:E	TRIM33			gi|74027249|ref|NP_	tripartite motif-containing 33	1127	122533	6.7	0	o	Q	35	0.001
2577	1	3.69E-06	0	0	INF		ENSG00000144550:E	CPNE9			gi|88703066|ref|NP_	copine-like protein [Homo sa	553	61864	5.3	0	o	Q	35	0
2578	1	3.59E-06	0	0	INF		ENSG00000113318:E	MSH3			gi|68303635|ref|NP_	mutS homolog 3 [Homo sapie	1137	127440	8.1	0	o	S	22	0.876
2579	1	3.59E-06	0	0	INF		ENSG00000197299:E	BLM			gi|4557365|ref|NP_0	Bloom syndrome protein [Ho	1417	159000	7.5	0	o	Q	0	0
2580	1	3.58E-06	0	0	INF		ENSG00000126001:E	CEP250			gi|21735548|ref|NP_	centrosomal protein 2 isoform	2442	281134	5	0	o	Q	27	0.002
2581	1	3.58E-06	0	0	INF		ENSG00000171467:E	ZNF318			gi|120587019|ref|NP	zinc finger protein 318 [Homo	2279	251110	7.2	0	o	Q	0	0
2582	1	3.52E-06	0	0	INF		ENSG00000188994:E	ZNF292			gi|150170718|ref|NP	zinc finger protein 292 [Homo	2723	304815	7.4	0	o	Q	0	0
2583	1	3.47E-06	0	0	INF		ENSG00000213079:E	RBM16			gi|62460633|ref|NP_	RNA-binding motif protein 16	1271	140519	8.3	0	o	Q	0	0
2584	1	2.95E-06	0	0	INF		ENSG00000083223:E	ZCCHC6			gi|58331272|ref|NP_	zinc finger, CCHC domain co	1495	171228	6.8	0	o	Q	0	0
2585	1	2.95E-06	0	0	INF		ENSG00000090615:E	GOLGA3			gi|30089940|ref|NP_	Golgi autoantigen, golgin sub	1498	167354	5.4	0	o	Q	0	0
2586	1	2.94E-06	0	0	INF		ENSG00000186566:E	GPATCH8			gi|50962882|ref|NP_	G patch domain containing 8	1502	164197	8.7	0	o	Q	0	0
2587	1	2.85E-06	0	0	INF		ENSG00000173473:E	SMARCC1			gi|21237802|ref|NP_	SWI/SNF-related matrix-asso	1105	122721	5.8	0	o	S	30	0.806
2588	1	2.74E-06	0	0	INF		ENSG00000167258:E	CRKRS			gi|157817023|ref|NP	Cdc2-related kinase, arginine	1490	164154	9.4	0	o	Q	27	0.001
2589	1	2.47E-06	0	0	INF		ENSG00000187908:E	DMBT1			gi|148539840|ref|NP	deleted in malignant brain tu	1785	193970	5.4	0	o	S	20	0.902
2590	1	2.17E-06	0	0	INF		ENSG00000152223:E	KIAA1632			gi|93204865|ref|NP_	hypothetical protein LOC577	2579	292479	6.4	0	o	Q	0	0
2591	1	1.99E-06	0	0	INF		ENSG00000198734:E	F5			gi|105990535|ref|NP	coagulation factor V precurso	2224	251701	6	0	o	S	29	0.98
2592	1	1.69E-06	0	0	INF		ENSG00000131503:E	MASK-BP3			gi|37620163|ref|NP_	ANKHD1-EIF4EBP3 protein	2617	277173	5.9	0	o	Q	0	0
2593	1	1.11E-06	0	0	INF		ENSG00000118058:E	MLL			gi|56550039|ref|NP_	myeloid/lymphoid or mixed-li	3969	431768	9.1	0	o	Q	49	0.279
2594	10	0.003425	7	0.000842	4.066459		ENSG00000139641:E	FAM62A			gi|14149680|ref|NP_	family with sequence similari	1104	122856	5.8	2	o68-90i241	Q	0	0
2595	10	0.001218	6	0.000855	1.424603		ENSG00000089597:E	GANAB			gi|38202257|ref|NP_	alpha glucosidase II alpha su	944	106874	6.1	1	i13-32o	S	33	0.996
2596	10	0.000909	6	0.000398	2.281314		ENSG00000112992:E	NNT			gi|122939155|ref|NP	nicotinamide nucleotide trans	1086	113895	8.1	12	o476-498i5	S	24	0.535

rk	RESTING LYMPHOCYTES NEs: HsNaOH-NE_NT_lymphocytes_CNBrTi_1_dNSAF	HsNaOH-NE_NT_lymphocytes_Ti_1_dNSAF	HsNaOH-NE_NT_lymphocytes_PK_1_dNSAF	HsSD-NE_NT_lymphocytes_Ti_1_dNSAF	HsSD-NE_NT_lymphocytes_PK_1_dNSAF	NT-bNEs Detected # Out of 5	NT-bNEs dNSAF AVG	NT-bNEs dNSAF SDV	PHA-TREATED LYMPHOCYTES NEs: HsNaOH-NE_PHA_lymphocytes_CNBrTi_1_dNSAF	HsNaOH-NE_PHA_lymphocytes_Ti_1_dNSAF	HsNaOH-NE_PHA_lymphocytes_PK_1_dNSAF	HsSD-NE_PHA_lymphocytes_Ti_1_dNSAF	HsSD-NE_PHA_lymphocytes_PK_1_dNSAF	PHA-bNEs Detected # Out of 5	PHA-bNEs dNSAF AVG	PHA-bNEs dNSAF SDV	MMs: MmNaOH-MM_liver_CNBrTi_1_dNSAF	MmNaOH-MM_liver_CNBrTi_2_dNSAF	RnNaOH-MM_liver_Ti_1_dNSAF	RnNaOH-MM_liver_Ti_2_dNSAF	RnNaOH-MM_liver_Ti_3_dNSAF	RnNaOH-MM_liver_Ti_4_dNSAF	RnNaOH-MM_liver_PK_1_dNSAF	RnNaOH-MM_liver_PK_2_dNSAF	Region_Note	GO_Component	GO_Function
2451	0	9.01E-05	0	0	0	1	2.25E-05	4.5E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Serine/Threonine protein		ATP binding; nucleotide
2452	0	0	0	9E-05	0	1	2.25E-05	4.5E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2453	0	8.97E-05	0	0	0	1	2.24E-05	4.49E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Present in Drosophila Scm,	nucleus	
2454	0	0	0	0	0	0	0	0	0	0	0	8.92E-05	0	1	2.23E-05	4.46E-05	0	0	0	0	0	0	0	0	Spermine/spermidine		spermidine synthase activity
2455	0	0	0	0	0	0	0	0	0	0	0	0	8.76E-05	1	2.19E-05	4.38E-05	0	0	0	0	0	0	0	0	RING-finger (Really	cytoplasm [pmid 11256614]	ligase activity; metal ion
2456	0	0	0	8.74E-05	0	1	2.19E-05	4.37E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Serine/Threonine protein		ATP binding; magnesium ion
2457	0	0	0	8.74E-05	0	1	2.19E-05	4.37E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Protein-L-isoaspartate	nucleolus [pmid 1394192];	methyltransferase activity;
2458	0	0	0	0	0	0	0	0	0	0	0	8.59E-05	0	1	2.15E-05	4.29E-05	0	0	0	0	0	0	0	0	Brown fat-inducible	cytoplasm [pmid 10578051];	acyl-CoA binding [pmid
2459	0	0	0	0	0	0	0	0	0	0	0	8.46E-05	0	1	2.11E-05	4.23E-05	0	0	0	0	0	0	0	0	Vacuolar protein sorting 36.	nucleus	lipid binding
2460	0	0	0	0	0	0	0	0	0	0	0	0	8.41E-05	1	2.1E-05	4.2E-05	0	0	0	0	0	0	0	0			
2461	0	0	0	8.37E-05	0	1	2.09E-05	4.19E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Uncharacterised protein		protein binding [pmid
2462	0	0	0	8.35E-05	0	1	2.09E-05	4.18E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Mitochondrial 28S	mitochondrial ribosome [pmid	structural constituent of
2463	0	0	0	8.31E-05	0	1	2.08E-05	4.16E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	V-type ATPase 116kDa		metal ion binding; protein
2464	0	8.04E-05	0	0	0	1	2.01E-05	4.02E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		cytoplasm [pmid 11256614]	catalytic activity
2465	0	0	0	8.03E-05	0	1	2.01E-05	4.01E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NUP50 (Nucleoporin 50	integral to membrane; nuclear	porin activity
2466	0	0	0	8.01E-05	0	1	2E-05	4.01E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ankyrin repeats; ankyrin		metal ion binding; zinc ion
2467	0	7.95E-05	0	0	0	1	1.99E-05	3.97E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Folylpolyglutamate	cytoplasm [pmid 1409616];	ATP binding; ligase activity;
2468	0	0	0	0	0	0	0	0	0	0	0	7.92E-05	0	1	1.98E-05	3.96E-05	0	0	0	0	0	0	0	0	Nin one binding (NOB1) Zn-	nucleus	metal ion binding; zinc ion
2469	0	0	0	7.91E-05	0	1	1.98E-05	3.95E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Vps53-like, N-terminal.	membrane	
2470	0	7.85E-05	0	0	0	1	1.96E-05	3.93E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		intracellular [pmid 12604780]	hepatocyte growth factor
2471	0	0	0	0	0	0	0	0	0	0	0	0	7.84E-05	1	1.96E-05	3.92E-05	0	0	0	0	0	0	0	0	RFX DNA-binding domain.	nucleus	DNA binding; RNA
2472	0	0	0	7.76E-05	0	1	1.94E-05	3.88E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Peptidase C1B subfamily	cytoplasm [pmid 8639621];	aminopeptidase activity
2473	0	0	0	7.75E-05	0	1	1.94E-05	3.87E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Adenylosuccinate		adenylosuccinate synthase
2474	0	0	0	7.69E-05	0	1	1.92E-05	3.85E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Peptidase family M3. This		metal ion binding;
2475	0	0	0	0	0	0	0	0	0	0	0	0	7.67E-05	1	1.92E-05	3.83E-05	0	0	0	0	0	0	0	0	Phospholipase C (PLC)		calcium ion binding;
2476	0	0	0	0	0	0	0	0	0	0	0	7.66E-05	0	1	1.92E-05	3.83E-05	0	0	0	0	0	0	0	0	Src homology 3 domains;	actin cytoskeleton [pmid	protein binding [pmid
2477	0	7.57E-05	0	0	0	1	1.89E-05	3.79E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Kelch motif. The kelch motif		protein binding
2478	0	0	0	0	0	0	0	0	0	0	0	0	7.56E-05	1	1.89E-05	3.78E-05	0	0	0	0	0	0	0	0		centrosome [pmid 14718566];	binding; protein binding [pmid
2479	0	0	0	0	0	0	0	0	0	0	0	7.52E-05	0	1	1.88E-05	3.76E-05	0	0	0	0	0	0	0	0	MIZ/SP-RING zinc finger.	nucleus [pmid 9724754]	androgen receptor binding
2480	0	0	0	7.42E-05	0	1	1.86E-05	3.71E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A subfamily of Peptidase		cysteine-type endopeptidase
2481	0	7.37E-05	0	0	0	1	1.84E-05	3.68E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2482	0	0	0	7.35E-05	0	1	1.84E-05	3.68E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2483	0	0	0	7.34E-05	0	1	1.84E-05	3.67E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Serine/Threonine protein	nucleus	ATP binding; nucleotide
2484	0	0	0	0	0	0	0	0	0	7.18E-05	0	0	0	1	1.79E-05	3.59E-05	0	0	0	0	0	0	0	0	ENTH domain, Epsin family;	Golgi apparatus [pmid	lipid binding
2485	0	0	0	7.07E-05	0	1	1.77E-05	3.53E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Protein of unknown function	centrosome [pmid 14654843];	fibroblast growth factor
2486	0	0	0	7.04E-05	0	1	1.76E-05	3.52E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Helix-turn-helix (HTH)	cytoplasm [pmid 11256614]	
2487	0	7.04E-05	0	0	0	1	1.76E-05	3.52E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	RhoGAP_ARHGAP18:	intracellular	GTPase activator activity;
2488	0	0	0	0	0	0	0	0	0	0	0	0	7.02E-05	1	1.75E-05	3.51E-05	0	0	0	0	0	0	0	0			
2489	0	0	0	0	0	0	0	0	0	6.94E-05	0	0	0	1	1.73E-05	3.47E-05	0	0	0	0	0	0	0	0	Serine/Threonine protein	cytoplasm [pmid 8537403]	ATP binding; metal ion
2490	0	0	0	0	0	0	0	0	0	0	0	6.86E-05	0	1	1.71E-05	3.43E-05	0	0	0	0	0	0	0	0	mRNA capping enzyme.	nucleus [pmid 9705270]	methyltransferase activity;
2491	0	0	0	0	0	0	0	0	0	0	0	6.86E-05	0	1	1.71E-05	3.43E-05	0	0	0	0	0	0	0	0	glycine rich nucleic binding	intracellular	nucleic acid binding
2492	0	6.83E-05	0	0	0	1	1.71E-05	3.42E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2493	0	0	0	0	0	0	0	0	0	0	0	6.81E-05	0	1	1.7E-05	3.4E-05	0	0	0	0	0	0	0	0	NUC205 domain. This	nucleus	
2494	0	0	0	6.78E-05	0	1	1.69E-05	3.39E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			binding; receptor activity
2495	0	0	0	6.68E-05	0	1	1.67E-05	3.34E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	WD40 domain, found in a	ubiquitin ligase complex [pmid	protein binding [pmid
2496	0	6.65E-05	0	0	0	1	1.66E-05	3.33E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2497	0	0	0	6.61E-05	0	1	1.65E-05	3.3E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Serine/Threonine protein	nucleus [pmid 9687510]	ATP binding [pmid 9687510];
2498	0	0	0	0	0	0	0	0	0	6.59E-05	0	0	0	1	1.65E-05	3.29E-05	0	0	0	0	0	0	0	0	Mpp10 protein. This family	nucleolus [pmid 9450966];	protein binding [pmid
2499	0	6.59E-05	0	0	0	1	1.65E-05	3.29E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Exocyst complex	cytoplasm [pmid 9119050]	
2500	0	0	0	6.58E-05	0	1	1.64E-05	3.29E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Serine/threonine	mitochondrion; protein	calcium ion binding; catalytic
2501	0	6.5E-05	0	0	0	1	1.62E-05	3.25E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2502	0	6.44E-05	0	0	0	1	1.61E-05	3.22E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2503	0	6.38E-05	0	0	0	1	1.6E-05	3.19E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	VWA Copine: Copines are		
2504	0	0	0	6.29E-05	0	1	1.57E-05	3.14E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2505	0	0	0	0	0	0	0	0	0	6.27E-05	0	0	0	1	1.57E-05	3.13E-05	0	0	0	0	0	0	0	0	Phospholipase D (PLD)	endoplasmic reticulum;	hydrolase activity;
2506	0	0	0	0	0	0	0	0	0	0	0	6.26E-05	0	1	1.57E-05	3.13E-05	0	0	0	0	0	0	0	0	Polynucleotide kinase 3	nucleus [pmid 10446193]	ATP binding [pmid
2507	0	0	0	6.26E-05	0	1	1.56E-05	3.13E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	RAP domain. This domain		ATP binding; protein kinase
2508	0	6.2E-05	0	0	0	1	1.55E-05	3.1E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Plasminogen Activator	cytosol [pmid 8415716]	protein binding [pmid
2509	0	0	0	0	0	0	0	0	0	0	0	6.18E-05	0	1	1.55E-05	3.09E-05	0	0	0	0	0	0	0	0	PWWP domain. The	nucleus [pmid 7621829]	DNA binding; metal ion
2510	0	0	0	6.11E-05	0	1	1.53E-05	3.06E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Serine/Threonine protein	cytoplasm [pmid 16142408]	actin binding; ATP binding
2511	0	0	0	6.08E-05	0	1	1.52E-05	3.04E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2512	0	6.05E-05	0	0	0	1	1.51E-05	3.03E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Utp14 protein. This protein	nucleus	protein binding [pmid
2513	0	0	0	0	0	0	0	0	0	6E-05	0	0	0	1	1.5E-05	3E-05	0	0	0	0	0	0	0	0	WD40 domain, found in a		
2514	0	0	0	0	0	0	0	0	0	0	0	0.00006	0	1	0.000015	0.00003	0	0	0	0	0	0	0	0			
2515	0	0	0	0	0	0	0	0	0	0	0	0	5.97E-05	1	1.49E-05	2.98E-05	0	0	0	0	0	0	0	0	A subfamily of Peptidase		cysteine-type endopeptidase
2516	0	0	0	5.95E-05	0	1	1.49E-05	2.97E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	BRIGHT, ARID (A/T-rich	intracellular; nucleus [pmid	DNA binding [pmid
2517	0	0	0	5.87E-05	0	1	1.47E-05	2.93E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Leucine-rich repeats		transferase activity
2518	0	0	0	0	0	0	0	0	0	0	0	5.83E-05	0	1	1.46E-05	2.91E-05	0	0	0	0	0	0	0	0	Herpesviridae UL52/UL70		
2519	0	5.8E-05	0	0	0	1	1.45E-05	2.9E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Bms1. Bms1 is an		
2520	0	0	0	0	0	0	0	0	0	0	0	5.76E-05	0	1	1.44E-05	2.88E-05	0	0	0	0	0	0	0	0	Putative transcriptional	intracellular; nucleus	DNA binding; metal ion
2521	0	0	0	0	0	0	0	0	0	0	0	5.76E-05	0	1	1.44E-05	2.88E-05	0	0	0	0	0	0	0	0	Rab geranylgeranyl		metal ion binding; protein
2522	0	0	0	0	0	0	0	0	0	0	0	5.63E-05	0	1	1.41E-05	2.81E-05	0	0	0	0	0	0	0	0	MT-A70. MT-A70 is the S-	nucleus [pmid 9409616]	methyltransferase activity;
2523	0	0	0	5.63E-05	0	1	1.41E-05	2.81E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2524	0	0	0	5.63E-05	0	1	1.41E-05	2.81E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2525	0	0	0	5.5E-05	0	1	1.38E-05	2.75E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Adaptin N terminal region.	integrator complex [pmid	binding; protein binding [pmid
2526	0	0	0	0	0	0	0	0	0	5.46E-05	0	0	0	1	1.36E-05	2.73E-05	0	0	0	0	0	0	0	0	Serine/Threonine protein		ATP binding; nucleotide
2527	0	5.39E-05	0	0	0	1	1.35E-05	2.69E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2528	0	5.31E-05	0	0	0	1	1.33E-05	2.66E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Spectrin repeats, found in	cytoskeleton [pmid 9521878]	protein binding [pmid
2529	0	0	0	0	0	0	0	0	0	5.31E-05	0	0	0	1	1.33E-05	2.66E-05	0	0	0	0	0	0	0	0	Tetratricopeptide repeat		methyltransferase activity;
2530	0	0	0	5.28E-05	0	1	1.32E-05	2.64E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Domain III of the GP-1		electron carrier activity; GTP
2531	0	0	0	5.27E-05	0	1	1.32E-05	2.64E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PWWP domain. The		
2532	0	0	0	0	0	0	0	0	0	0	0	0	5.27E-05	1	1.32E-05	2.63E-05	0	0	0	0	0	0	0	0			
2533	0	0	0	0	0	0	0	0	0	0	0	5.25E-05	0	1	1.31E-05	2.62E-05	0	0	0	0	0	0	0	0	Protein of unknown function	histone deacetylase complex	DNA binding [pmid 9674425];
2534	0	0	0	5.16E-05	0	1	1.29E-05	2.58E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	RNA-metabolising metallo-	nucleoplasm [pmid 7969155];	RNA binding
2535	0	0	0	5.15E-05	0	1	1.29E-05	2.57E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Rab family. Rab GTPases		GTP binding; nucleotide
2536	0	0	0	5.13E-05	0	1	1.28E-05	2.56E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2537	0	0	0	5.05E-05	0	1	1.26E-05	2.53E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Domain Homologous to E6-	intracellular	ubiquitin-protein ligase
2538	0	0	0	0	0	0	0	0	0	0	0	5.04E-05	0	1	1.26E-05	2.52E-05	0	0	0	0	0	0	0	0	Two conserved tryptophans		glucan 1,4-alpha-glucosidase
2539	0	0	0	0	0	0	0	0	0	4.96E-05	0	0	0	1	1.24E-05	2.48E-05	0	0	0	0	0	0	0	0	Chromosome segregation	cytoplasm [pmid 11256614]	binding
2540	0	0	0	4.95E-05	0	1	1.24E-05	2.48E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2541	0	0	0	0	0	0	0	0	0	4.89E-05	0	0	0	1	1.22E-05	2.45E-05	0	0	0	0	0	0	0	0	PARIS-1 pleckstrin		GTPase activator activity
2542	0	0	0	0	0	0	0	0	0	0	0	0	4.87E-05	1	1.22E-05	2.43E-05	0	0	0	0	0	0	0	0	Pleckstrin homology (PH)	actin cytoskeleton [pmid	actin binding; GTP-Rho
2543	0	0	0	4.87E-05	0	1	1.22E-05	2.43E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TlpA-like family, DipZ-like		electron carrier activity
2544	0	4.86E-05	0	0	0	1	1.21E-05	2.43E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Peptidase family M1.	endoplasmic reticulum lumen	aminopeptidase activity
2545	0	0	0	0	0	0	0	0	0	0	0	0	4.83E-05	1	1.21E-05	2.42E-05	0	0	0	0	0	0	0	0	DENN (AEX-3) domain.	cytoplasm [pmid 8988362];	death receptor binding [pmid
2546	0	4.8E-05	0	0	0	1	1.2E-05	2.4E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Tetratricopeptide repeat	intracellular; nucleus	metal ion binding; nucleic
2547	0	4.62E-05	0	0	0	1	1.16E-05	2.31E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ATP dependent DNA ligase	intracellular; nucleus [pmid	ATP binding; DNA binding
2548	0	0	0	0	0	0	0	0	0	0	0	4.62E-05	0	1	1.15E-05	2.31E-05	0	0	0	0	0	0	0	0	Zinc knuckle. The zinc		metal ion binding; nucleic
2549	0	0	0	0	0	0	0	0	0	0	0	4.57E-05	0	1	1.14E-05	2.28E-05	0	0	0	0	0	0	0	0	CDC/Septin. Septins are a	stress fiber [pmid 15485874]	GTP binding; nucleotide
2550	0	0	0	0	0	0	0	0	0	4.53E-05	0	0	0	1	1.13E-05	2.26E-05	0	0	0	0	0	0	0	0			
2551	0	0	0	0	0	0	0	0	0	0	0	0	4.46E-05	1	1.11E-05	2.23E-05	0	0	0	0	0	0	0	0	Ricin-type beta-trefoil;		sugar binding
2552	0	0	0	4.45E-05	0	1	1.11E-05	2.22E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2553	0	0	0	0	0	0	0	0	0	0	0	4.43E-05	0	1	1.11E-05	2.22E-05	0	0	0	0	0	0	0	0	Oxysterol binding protein		
2554	0	0	0	4.41E-05	0	1	1.1E-05	2.21E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2555	0	0	0	0	0	0	0	0	0	0	0	0	4.39E-05	1	1.1E-05	2.19E-05	0	0	0	0	0	0	0	0	ATP-dependent Clp		ligase activity; metal ion
2556	0	0	0	4.38E-05	0	1	1.1E-05	2.19E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2557	0	4.37E-05	0	0	0	1	1.09E-05	2.18E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ANTH domain. AP180 is an	clathrin-coated vesicle;	actin binding; phospholipid
2558	0	0	0	4.35E-05	0	1	1.09E-05	2.18E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	preprotein translocase	intracellular	metal ion binding; nucleic
2559	0	0	0	4.33E-05	0	1	1.08E-05	2.17E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	glycine rich nucleic binding	intracellular; nucleus [pmid	DNA binding [pmid
2560	0	0	0	0	0	0	0	0	0	4.33E-05	0	0	0	1	1.08E-05	2.17E-05	0	0	0	0	0	0	0	0	Inositol polyphosphate		inositol or
2561	0	0	0	0	0	0	0	0	0	4.33E-05	0	0	0	1	1.08E-05	2.16E-05	0	0	0	0	0	0	0	0	Importin, protein involved in	cytoplasm; nuclear pore;	binding; protein transporter
2562	0	0	0	0	0	0	0	0	0	4.2E-05	0	0	0	1	1.05E-05	2.1E-05	0	0	0	0	0	0	0	0	Domain Homologous to E6-	intracellular	ubiquitin-protein ligase
2563	0	0	0	0	0	0	0	0	0	0	0	0	4.16E-05	1	1.04E-05	2.08E-05	0	0	0	0	0	0	0	0			
2564	0	0	0	0	0	0	0	0	0	0	0	4.07E-05	0	1	1.02E-05	2.03E-05	0	0	0	0	0	0	0	0	RING-finger (Really	nucleus [pmid 12176013]	DNA binding; ligase activity;
2565	0	4.02E-05	0	0	0	1	1.01E-05	2.01E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S-100/ICaBP-like domain;	cytoplasmic membrane-bound	calcium ion binding [pmid
2566	0	0	0	0	0	0	0	0	0	0	0	0	3.95E-05	1	9.87E-06	1.97E-05	0	0	0	0	0	0	0	0			
2567	0	0	0	0	0	0	0	0	0	3.84E-05	0	0	0	1	9.59E-06	1.92E-05	0	0	0	0	0	0	0	0			
2568	0	0	0	3.74E-05	0	1	9.36E-06	1.87E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2569	0	0	0	3.71E-05	0	1	9.27E-06	1.85E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2570	0	0	0	3.55E-05	0	1	8.88E-06	1.78E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2571	0	0	3.48E-05	0	0	1	8.69E-06	1.74E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2572	0	0	0	0	0	0	0	0	0	0	0	0	3.46E-05	1	8.66E-06	1.73E-05	0	0	0	0	0	0	0	0	Src homology 3 domains;	myosin	actin binding; ATP binding;
2573	0	0	0	0	0	0	0	0	0	0	0	3.37E-05	0	1	8.43E-06	1.69E-05	0	0	0	0	0	0	0	0	DDT domain. This domain	cytoplasm [pmid 7621746];	DNA-dependent ATPase
2574	0	0	0	0	0	0	0	0	0	0	0	3.28E-05	0	1	8.19E-06	1.64E-05	0	0	0	0	0	0	0	0	Myristoyl-CoA:protein N-		acyltransferase activity;
2575	0	3.16E-05	0	0	0	1	7.91E-06	1.58E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2576	0	0	0	3.13E-05	0	1	7.84E-06	1.57E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	B-Box-type zinc finger; zinc	intracellular; nucleus	DNA binding; metal ion
2577	0	0	0	0	0	0	0	0	0	0	0	2.95E-05	0	1	7.38E-06	1.48E-05	0	0	0	0	0	0	0	0	VWA Copine: Copines are		
2578	0	0	0	0	0	0	0	0	0	0	0	2.87E-05	0	1	7.18E-06	1.44E-05	0	0	0	0	0	0	0	0	MutS3 homolog in	nucleus [pmid 8942985]	ATP binding; damaged DNA
2579	0	0	0	0	0	0	0	0	0	0	0	0	2.87E-05	1	7.17E-06	1.43E-05	0	0	0	0	0	0	0	0	Helicase superfamily c-	intracellular; nucleus	ATP binding; ATP-dependent
2580	0	2.87E-05	0	0	0	1	7.16E-06	1.43E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	RecF/RecN/SMC N	centrosome [pmid 9647649]	protein kinase binding [pmid
2581	0	0	0	0	0	0	0	0	0	0	0	2.86E-05	0	1	7.16E-06	1.43E-05	0	0	0	0	0	0	0	0			
2582	0	0	0	0	0	0	0	0	0	0	0	0	2.82E-05	1	7.05E-06	1.41E-05	0	0	0	0	0	0	0	0			
2583	0	0	0	2.78E-05	0	1	6.95E-06	1.39E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	CID (CTD-Interacting		nucleotide binding; RNA
2584	0	0	0	2.36E-05	0	1	5.91E-06	1.18E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Zinc knuckle. The zinc		metal ion binding; nucleic
2585	0	0	0	2.36E-05	0	1	5.9E-06	1.18E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Chromosome segregation	Golgi apparatus [pmid	transporter activity [pmid
2586	0	0	0	2.35E-05	0	1	5.88E-06	1.18E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Spectrin repeats, found in		
2587	0	0	0	2.28E-05	0	1	5.71E-06	1.14E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	SWIRM domain. This	chromatin; nucleoplasm [pmid	chromatin binding; DNA
2588	0	0	0	0	0	0	0	0	0	0	0	2.19E-05	0	1	5.48E-06	1.1E-05	0	0	0	0	0	0	0	0			
2589	0	0	0	1.98E-05	0	1	4.95E-06	9.9E-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2590	0	0	0	0	0	0	0	0	0	1.74E-05	0	0	0	1	4.35E-06	8.7E-06	0	0	0	0	0	0	0	0			
2591	0	0	0	1.59E-05	0	1	3.97E-06	7.94E-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2592	0	0	0	1.35E-05	0	1	3.37E-06	6.75E-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Ankyrin repeat. There's no		RNA binding
2593	0	0	0	8.9E-06	0	1	2.23E-06	4.45E-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	CXXC zinc finger. This	nucleus [pmid 11313484]	ATP binding; DNA binding;
2594	0.005435	0.003739	0.006126	0.000832	0.000369	5	0.004033	0.002358	0.006433	0.002682	0.0038	0.00034	0.001808	5	0.002816	0.002598	0	0.000846	0.000893	0.0012	0.001503	0.000575	0.000958	0.000761	Protein kinase C conserved	integral to membrane;	
2595	0.001203	0.001557	0.002189	0.000505	0.002588	5	0.001363	0.000703	0.00047	0.00183	0.000741	0.000571	0.001423	5	0.001073	0.000661	0	0	0.001197	0.001615	0.001544	0.000907	0.000944	0.000635	Glycosyl hydrolases family	endoplasmic reticulum	hydrolase activity; hydrolase
2596	0.001941	0.001224	0.000173	0.000472	0.00075	5	0.000953	0.000794	0.001635	0.001384	0.003219	9.02E-05	0.000353	5	0.000866	0.000758	0	0	0.000341	0.000668	0.00093	0.000404	0.00045	0.000396			

rk	NEs detected # out of 10 runs	NEs dNSAF_AVG	MMs detected # out of 8 runs	MMs dNSAF_AVG	NEs:MMs	Detected in Mitochondria	ORTHO_GROUP	GENE_NAME	NET_NAME	Location & Gene Expression Data	Locus	Description	Length	MW	pI	PredHel
2597	9	0.00407	7	0.004424	0.919853		ENSG00000118705:E	RPN2			gi|35493916|ref|NP_	ribophorin II precursor [Homo	631	69284	5.7	4
2598	9	0.003376	7	0.002292	1.473132		ENSG00000117242:E	DDOST			gi|20070197|ref|NP_	dolichyl-diphosphooligosacch	456	50702	6.4	2
2599	9	0.003289	7	0.004089	0.804313		ENSG00000127022:E	CANX			gi|66933005|ref|NP_	calnexin precursor [Homo sa	592	67568	4.6	1
2600	9	0.003267	8	0.003386	0.964865		ENSG00000163902:E	RPN1			gi|4506675|ref|NP_0	ribophorin I precursor [Homo	607	68569	6.4	1
2601	9	0.000984	8	0.003631	0.270981		ENSG00000115275:E	GCS1			gi|149999606|ref|NP	mannosyl-oligosaccharide gl	837	91918	8.9	1
2602	8	0.003807	8	0.002361	1.612516		ENSG00000148248:E	SURF4			gi|19557691|ref|NP_	surfeit 4 [Homo sapiens]	269	30394	7.8	5
2603	8	0.001644	7	0.012806	0.128383		ENSG00000004939:E	SLC4A1			gi|4507021|ref|NP_0	solute carrier family 4, anion	911	101792	5.2	11
2604	8	0.000812	8	0.008862	0.091681		ENSG00000127948:E	POR			gi|127139033|ref|NP	cytochrome P450 reductase	680	77048	5.6	1
2605	8	0.000453	6	0.001644	0.275677		ENSG00000110090:E	CPT1A			gi|73623028|ref|NP_	carnitine palmitoyltransferase	756	86239	8.4	2
2606	7	0.001687	6	0.001346	1.253351		NA:ENSMUSG00000	SEC22B			gi|94429050|ref|NP_	SEC22 vesicle trafficking pro	215	24593	6.9	1
2607	7	0.001601	7	0.001253	1.277655		ENSG00000058262:E	SEC61A1			gi|7019415|ref|NP_0	Sec61 alpha 1 subunit [Homo	476	52265	8.1	10
2608	7	0.001438	7	0.001112	1.293369		ENSG00000198171:E	C20orf116			gi|13027602|ref|NP_	hypothetical protein LOC659	314	35611	5.1	1
2609	7	0.00135	6	0.001852	0.728832		ENSG00000149084:E	HSD17B12			gi|7705855|ref|NP_0	hydroxysteroid (17-beta) deh	312	34324	9.3	3
2610	7	0.00109	6	0.000312	3.497465		ENSG00000204267:E	TAP2			gi|73747915|ref|NP_	transporter 2, ATP-binding ca	703	77695	7.9	6
2611	7	0.000914	6	0.000224	4.083687		ENSG00000101290:E	CDS2			gi|20143480|ref|NP_	phosphatidate cytidylyltransfe	445	51418	7.1	8
2612	7	0.000796	7	0.00096	0.829292		ENSG00000211456:E	SACM1L			gi|41281579|ref|NP_	suppressor of actin 1 [Homo	587	66979	7.3	2
2613	7	0.000724	6	0.000502	1.443314		ENSG00000174437:E	ATP2A2			gi|24638454|ref|NP_	ATPase, Ca++ transporting,	1042	114757	5.3	8
2614	7	0.000497	8	0.000538	0.925305		ENSG00000110719:E	TCIRG1			gi|19924145|ref|NP_	T-cell, immune regulator 1 is	830	92968	7.1	8
2615	7	0.000477	8	0.00049	0.973038		ENSG00000147649:E	MTDH			gi|30520310|ref|NP_	metadherin [Homo sapiens]	582	63823	9.3	1
2616	7	8.45E-05	6	0.000175	0.482079		ENSG00000135636:E	DYSF			gi|4503431|ref|NP_0	dysferlin [Homo sapiens]	2080	237293	5.6	1
2617	6	0.003332	6	0.00205	1.625166		ENSG00000171557:E	FGG			gi|70906437|ref|NP_	fibrinogen, gamma chain isof	437	49497	6.1	1
2618	6	0.002939	7	0.03209	0.091597		ENSG00000103018:E	CYB5B			gi|83921614|ref|NP_	cytochrome b5 outer mitocho	150	16695	5	1
2619	6	0.002389	7	0.001072	2.22908		ENSG00000164040:E	PGRMC2			gi|5453916|ref|NP_0	progesterone receptor memb	223	23818	4.9	1
2620	6	0.001615	4	0.000794	2.033751		ENSG00000144746:E	ARL6IP5			gi|5453704|ref|NP_0	ADP-ribosylation-like factor 6	188	21615	9.8	3
2621	6	0.001312	2	0.000528	2.484284		ENSG00000169223:E	LMAN2			gi|5803023|ref|NP_0	lectin, mannose-binding 2 [H	356	40229	7	1
2622	6	0.000912	5	0.001007	0.90505		ENSG00000170348:E	TMED10			gi|98986464|ref|NP_	transmembrane emp24 doma	219	24976	7.5	2
2623	6	0.000843	5	0.000813	1.036601		ENSG00000103415:E	HMOX2			gi|8051608|ref|NP_0	heme oxygenase (decyclizing	316	36033	5.4	1
2624	6	0.000738	8	0.002732	0.270227		ENSG00000184743:E	ATLA3			gi|45827806|ref|NP_	atlastin 3 [Homo sapiens]	541	60542	5.7	2
2625	6	0.000721	8	0.0029	0.248733		ENSG00000074695:E	LMAN1			gi|5031873|ref|NP_0	lectin, mannose-binding, 1 pr	510	57549	6.8	1
2626	6	0.000594	1	0.000337	1.764567		ENSG00000138073:E	PREB			gi|7019503|ref|NP_0	prolactin regulatory element	417	45468	7.9	2
2627	6	0.000516	4	0.000209	2.471704		ENSG00000115310:E	RTN4			gi|24431933|ref|NP_	reticulon 4 isoform B [Homo	373	40318	4.8	2
2628	6	0.000438	2	0.000413	1.059677		ENSG00000163399:E	ATP1A1			gi|21361181|ref|NP_	Na+/K+ -ATPase alpha 1 sub	1023	112896	5.5	10
2629	6	0.000374	5	0.000339	1.104376		ENSG00000168003:E	SLC3A2			gi|61744475|ref|NP_	solute carrier family 3 (activa	661	71123	5	1
2630	6	0.000268	3	0.000105	2.559167		ENSG00000100258:E	TMEM112B			gi|24308356|ref|NP_	lipase maturation factor 2 [H	682	76915	10	6
2631	6	0.000223	4	6.24E-05	3.58053		ENSG00000149428:E	HYOU1			gi|5453832|ref|NP_0	hypoxia up-regulated 1 precu	999	111335	5.2	1
2632	6	0.000176	5	0.000178	0.989877		ENSG00000105726:E	ATP13A1			gi|9966897|ref|NP_0	ATPase type 13A1 [Homo sa	1086	121110	7.8	6
2633	6	0.000171	6	0.000267	0.64182		ENSG00000025796:E	SEC63			gi|6005872|ref|NP_0	SEC63-like protein [Homo sa	760	87997	5.3	3
2634	5	0.001648	6	0.001415	1.164339		ENSG00000147955:E	OPRS1			gi|5032117|ref|NP_0	opioid receptor, sigma 1 isof	223	25128	6	1
2635	5	0.001237	8	0.010376	0.119229		ENSG00000093010:E	COMT			gi|4502969|ref|NP_0	catechol-O-methyltransferase	271	30037	5.5	1
2636	5	0.001115	6	0.000715	1.559526		ENSG00000110917:E	MLEC; KIAA0152			gi|7661948|ref|NP_0	malectin precursor ; hypothet	292	32234	5.4	1
2637	5	0.000906	6	0.002711	0.334294		ENSG00000101558:E	VAPA			gi|94721252|ref|NP_	vesicle-associated membran	249	27893	8.6	1
2638	5	0.000625	5	0.00018	3.474205		ENSG00000005961:E	ITGA2B			gi|88758615|ref|NP_	integrin alpha 2b preproprote	1039	113377	5.4	1
2639	5	0.000583	7	0.004092	0.14252		ENSG00000099797:E	GPSN2			gi|24475816|ref|NP_	glycoprotein, synaptic 2 [Hom	308	36034	9.4	4
2640	5	0.000551	4	0.000719	0.766853		ENSG00000124783:E	SSR1			gi|4507237|ref|NP_0	signal sequence receptor, alp	286	32183	4.5	1
2641	5	0.000441	4	0.000155	2.850312		ENSG00000095303:E	PTGS1			gi|18104967|ref|NP_	prostaglandin-endoperoxide	599	68686	7.2	1
2642	5	0.000409	7	0.001662	0.246047		ENSG00000074696:E	PTPLAD1			gi|117168248|ref|NP	protein tyrosine phosphatase	362	43160	8.9	5
2643	5	0.000355	7	0.001696	0.209505		ENSG00000108829:E	LRRC59			gi|40254924|ref|NP_	leucine rich repeat containing	307	34930	9.6	1
2644	5	0.000353	6	0.000443	0.797513		ENSG00000116521:E	SCAMP3			gi|16445419|ref|NP_	secretory carrier membrane	347	38287	7.6	4
2645	5	0.000353	6	0.000391	0.900559		ENSG00000125505:E	LENG4			gi|23308572|ref|NP_	leukocyte receptor cluster (L	472	52775	9	5
2646	5	0.000344	6	0.000905	0.380336		ENSG00000150093:E	ITGB1			gi|19743815|ref|NP_	integrin beta 1 isoform 1B pr	789	87446	5.5	1
2647	5	0.000327	6	0.000434	0.754431		ENSG00000185187:E	SIGIRR			gi|11141877|ref|NP_	single Ig IL-1R-related molec	410	45707	6.6	1
2648	5	0.000327	6	0.000374	0.872997		ENSG00000198363:E	ASPH			gi|14589866|ref|NP_	aspartate beta-hydroxylase is	758	85863	5	1
2649	5	0.000279	6	0.000285	0.979674		ENSG00000104853:E	CLPTM1			gi|4502897|ref|NP_0	cleft lip and palate associated	669	76097	6.3	5
2650	5	0.000253	3	6.14E-05	4.118586		ENSG00000101294:E	HM13			gi|23308607|ref|NP_	minor histocompatibility antig	377	41488	6.4	7
2651	5	0.000246	3	8.17E-05	3.011292		ENSG00000072274:E	TFRC			gi|4507457|ref|NP_0	transferrin receptor [Homo sa	760	84901	6.6	1
2652	5	0.000235	5	7.41E-05	3.168642		ENSG00000084073:E	ZMPSTE24			gi|18379366|ref|NP_	zinc metalloproteinase STE2	475	54813	7.5	7
2653	5	0.000199	6	0.001488	0.133613		ENSG00000185825:E	BCAP31			gi|32171186|ref|NP_	B-cell receptor-associated pr	246	27992	8.4	3
2654	5	0.000127	2	3.56E-05	3.575722		ENSG00000091039:E	OSBPL8			gi|18079218|ref|NP_	oxysterol-binding protein-like	889	101196	7	1
2655	5	0.000126	4	0.000133	0.940279		ENSG00000090863:E	GLG1			gi|54633312|ref|NP_	golgi apparatus protein 1 [Ho	1203	137222	6.9	1
2656	5	0.000103	3	0.000115	0.897763		ENSG00000143641:E	GALNT2			gi|4758412|ref|NP_0	polypeptide N-acetylgalactos	571	64733	8.4	1
2657	5	9.8E-05	3	2.06E-05	4.74781		ENSG00000126777:E	KTN1			gi|118498356|ref|NP	kinectin 1 isoform a [Homo s	1357	156275	5.6	1
2658	5	8.22E-05	8	0.01996	0.004121		ENSG00000143819:E	EPHX1			gi|4503583|ref|NP_0	epoxide hydrolase 1, microso	455	52949	7.3	0
2659	5	6.78E-05	5	0.000202	0.33573		ENSG00000099219:E	ERMP1			gi|55749804|ref|NP_	aminopeptidase Fxna [Homo	904	100231	7.5	8
2660	5	6.59E-05	3	2.23E-05	2.950422		ENSG00000123104:E	ITPR2			gi|95147335|ref|NP_	inositol 1,4,5-triphosphate re	2701	308062	6.4	6
2661	4	0.001231	4	0.001981	0.621465		ENSG00000189043:E	NDUFA4			gi|4505357|ref|NP_0	NADH dehydrogenase (ubiqu	81	9370	9.4	1
2662	4	0.001171	7	0.000606	1.932896		ENSG00000124222:E	STX16			gi|34447229|ref|NP_	syntaxin 16 isoform b [Homo	304	34813	6.2	1
2663	4	0.000888	3	0.000246	3.606555		ENSG00000143198:E	MGST3			gi|4758714|ref|NP_0	microsomal glutathione S-tra	152	16516	9.4	4
2664	4	0.000779	4	0.000374	2.083714		ENSG00000100216:E	TOMM22			gi|9910382|ref|NP_0	mitochondrial import receptor	142	15522	4.3	1
2665	4	0.000649	2	0.000326	1.989144		ENSG00000129128:E	SPCS3			gi|11345462|ref|NP_	signal peptidase complex sub	180	20313	8.6	1
2666	4	0.000645	5	0.000301	2.146339		ENSG00000118363:E	SPCS2			gi|7661908|ref|NP_0	signal peptidase complex sub	123	14268	8.6	1
2667	4	0.000493	6	0.001509	0.327028		ENSG00000184840:E	TMED9			gi|39725636|ref|NP_	transmembrane emp24 prote	235	27277	8	2
2668	4	0.000366	2	7.42E-05	4.930377		ENSG00000103502:E	CDIPT			gi|5453906|ref|NP_0	CDP-diacylglycerol--inositol 3	213	23539	8	4
2669	4	0.000364	6	0.010092	0.036111		ENSG00000105518:E	TMEM205			gi|63055043|ref|NP_	transmembrane protein 205	189	21198	8.6	4
2670	4	0.000347	3	0.00054	0.641858		ENSG00000165644:E	COMTD1			gi|31542747|ref|NP_	catechol-O-methyltransferase	262	28809	8.4	1
2671	4	0.000323	2	6.58E-05	4.905199		ENSG00000100997:E	ABHD12			gi|109689718|ref|NP	abhydrolase domain containi	398	45097	8.6	1
2672	4	0.000299	6	0.001099	0.272128		ENSG00000112473:E	SLC39A7			gi|117553619|ref|NP	solute carrier family 39, mem	469	50118	6.9	7
2673	4	0.000295	2	0.000202	1.463268		ENSG00000101152:E	DNAJC5			gi|45504382|ref|NP_	DnaJ (Hsp40) homolog, subf	198	22149	5.1	1
2674	4	0.000292	4	6.64E-05	4.400476		ENSG00000008952:E	TLOC1			gi|4507525|ref|NP_0	translocation protein 1 [Homo	399	45862	7.1	2
2675	4	0.00025	6	0.001376	0.181441		ENSG00000105135:E	OR10B1P			gi|21361361|ref|NP_	ilvB (bacterial acetolactate sy	632	67868	8.1	1
2676	4	0.000225	1	0.00019	1.18494		ENSG00000168958:E	C2orf33			gi|31377607|ref|NP_	hypothetical protein LOC569	342	38465	9	1
2677	4	0.000216	5	0.000352	0.613387		ENSG00000109133:E	TMEM33			gi|8922491|ref|NP_0	transmembrane protein 33 [H	247	27951	9.7	3
2678	4	0.0002	6	0.000439	0.456227		ENSG00000131446:E	MGAT1			gi|4505161|ref|NP_0	mannosyl (alpha-1,3-)-glycop	445	50862	9.2	1
2679	4	0.000183	5	0.0001	1.830458		ENSG00000087111:E	PIGS			gi|15088795|ref|NP_	phosphatidylinositol glycan a	555	61656	6.5	2
2680	4	0.000181	7	0.000457	0.396301		ENSG00000115307:E	AUP1			gi|31712030|ref|NP_	ancient ubiquitous protein 1 [	410	45787	8.6	1
2681	4	0.00018	2	0.000111	1.616275		ENSG00000179820:E	MYADM			gi|66932929|ref|NP_	myeloid-associated differenti	322	35274	8.2	8
2682	4	0.000142	4	5.03E-05	2.822885		ENSG00000058668:E	ATP2B4			gi|48255957|ref|NP_	plasma membrane calcium A	1205	133930	6.4	8
2683	4	0.000141	5	8.65E-05	1.624856		ENSG00000141458:E	NPC1			gi|4557803|ref|NP_0	Niemann-Pick disease, type	1278	142148	5.4	12
2684	4	0.000121	6	0.001738	0.069812		ENSG00000125304:E	TM9SF2			gi|4758874|ref|NP_0	transmembrane 9 superfamil	663	75776	7.4	9
2685	4	0.000117	2	2.6E-05	4.512137		ENSG00000165282:E	PIGO			gi|23397648|ref|NP_	phosphatidylinositol glycan a	1089	118699	8.1	14
2686	4	0.000116	2	3.49E-05	3.326494		ENSG00000162736:E	NCSTN			gi|24638433|ref|NP_	nicastrin precursor [Homo sa	709	78411	6	1
2687	4	0.000104	8	0.008475	0.012294		ENSG00000140284:E	SLC27A2			gi|4503653|ref|NP_0	solute carrier family 27 (fatty	620	70312	8.4	3
2688	4	9.71E-05	1	0.000102	0.952342		ENSG00000119777:E	TMEM214			gi|134152721|ref|NP	hypothetical protein LOC548	689	77151	9.1	0
2689	4	9.63E-05	6	0.010192	0.009451		ENSG00000072210:E	ALDH3A2			gi|4557303|ref|NP_0	aldehyde dehydrogenase 3A	485	54848	7.9	1
2690	4	9.51E-05	2	5.09E-05	1.868626		ENSG00000156026:E	CCDC109A; LOC294560			gi|24308400|ref|NP_	coiled-coil domain containing	350	39758	8.6	3
2691	4	8.84E-05	7	0.000759	0.116469		ENSG00000150527:E	CTAGE5			gi|42740897|ref|NP_	CTAGE family, member 5 iso	804	90996	5.2	1
2692	4	8.58E-05	7	0.003154	0.027197		ENSG00000117528:E	ABCD3			gi|4506341|ref|NP_0	ATP-binding cassette, sub-fa	659	75476	9.4	3
2693	4	6.85E-05	4	9.33E-05	0.733917		ENSG00000173852:E	DPY19L1			gi|148839335|ref|NP	dpy-19-like 1 [Homo sapiens]	675	77319	9	10
2694	4	5.31E-05	6	0.000494	0.107352		ENSG00000077147:E	TM9SF3			gi|33859833|ref|NP_	transmembrane 9 superfamil	721	81802	8.4	9
2695	4	4.12E-05	5	3.26E-05	1.261922		ENSG00000198802:E	PECAM1			gi|110347451|ref|NP	platelet/endothelial cell adhe	738	82536	7	1
2696	4	3.93E-05	4	2.04E-05	1.923214		ENSG00000138119:E	FER1L3			gi|19718759|ref|NP_	myoferlin isoform b [Homo sa	2048	233474	6.2	1
2697	3	0.000784	5	0.001229	0.638038		ENSG00000117500:E	TMED5			gi|19923442|ref|NP_	transmembrane emp24 prote	229	26017	4.8	2
2698	3	0.000501	5	0.000462	1.083533		ENSG00000143183:E	TMCO1			gi|24308133|ref|NP_	transmembrane and coiled-c	188	21175	9.7	2
2699	3	0.000321	5	0.000424	0.758577		ENSG00000125037:E	TMEM111			gi|8923857|ref|NP_0	transmembrane protein 111 [	261	29952	6.8	2
2700	3	0.00029	4	0.000258	1.123202		ENSG00000079950:E	STX7			gi|4507295|ref|NP_0	syntaxin 7 [Homo sapiens]	261	29846	5.6	1
2701	3	0.000276	3	5.67E-05	4.871041		ENSG00000170540:E	ARL6IP1			gi|24308007|ref|NP_	ADP-ribosylation factor-like 6	203	23363	9.3	4
2702	3	0.000267	1	6.57E-05	4.05695		ENSG00000130193:E	C8orf55			gi|7706200|ref|NP_0	mesenchymal stem cell prote	208	23865	9.6	1
2703	3	0.000248	7	0.000898	0.275993		ENSG00000116133:E	DHCR24			gi|13375618|ref|NP_	24-dehydrocholesterol reduc	516	60101	8.2	2
2704	3	0.000246	4	0.000658	0.373591		ENSG00000110651:E	CD81			gi|4757944|ref|NP_0	CD81 antigen [Homo sapiens	236	25809	5.3	4
2705	3	0.000234	4	0.000445	0.524528		ENSG00000167130:E	DOLPP1			gi|30794376|ref|NP_	dolichyl pyrophosphate phos	238	27031	9.4	4
2706	3	0.000204	5	0.000404	0.503913		ENSG00000172954:E	LYCAT			gi|42558246|ref|NP_	lysocardiolipin acyltransferas	414	48920	8.6	3
2707	3	0.000187	4	0.000118	1.579581		ENSG00000049656:E	CLPTM1L			gi|21359965|ref|NP_	CLPTM1-like [Homo sapiens	538	62229	8.6	6
2708	3	0.000185	2	4.38E-05	4.234505		ENSG00000075790:E	BCAP29			gi|56549091|ref|NP_	B-cell receptor-associated pr	241	28320	9.5	3
2709	3	0.000185	4	0.000192	0.960156		ENSG00000178537:E	SLC25A20			gi|4557403|ref|NP_0	carnitine/acylcarnitine translo	301	32944	9.4	3
2710	3	0.00017	3	0.000468	0.363993		ENSG00000102050:E	PRAF2			gi|6005794|ref|NP_0	PRA1 domain family, membe	178	19258	9.2	4
2711	3	0.000159	4	0.000112	1.422766		ENSG00000116685:E	KIAA2013			gi|25286703|ref|NP_	hypothetical protein LOC902	634	69157	8.2	2
2712	3	0.000143	3	0.000126	1.131858		ENSG00000179036:E	VAMP2			gi|7657675|ref|NP_0	vesicle-associated membran	116	12649	8.1	1
2713	3	0.000139	3	0.000114	1.22424		ENSG00000138617:E	PARP16			gi|46195794|ref|NP_	poly (ADP-ribose) polymeras	323	36470	9	1
2714	3	0.000139	4	6.43E-05	2.157366		ENSG00000099968:E	BCL2L13			gi|45243501|ref|NP_	BCL2-like 13 (apoptosis facil	485	52723	4.4	1
2715	3	0.00012	4	4.24E-05	2.832422		ENSG00000116688:E	MFN2			gi|7662004|ref|NP_0	mitofusin 2 [Homo sapiens]	757	86402	7	1
2716	3	0.000119	1	0.0002	0.594213		ENSG00000141699:E	FAM134C			gi|30023820|ref|NP_	hypothetical protein LOC162	466	51396	5	3
2717	3	0.000115	5	0.000424	0.271877		ENSG00000166794:E	PPIB			gi|4758950|ref|NP_0	peptidylprolyl isomerase B pr	216	23743	9.4	1
2718	3	0.000103	4	0.000126	0.818546		ENSG00000169682:E	SPNS1			gi|14042968|ref|NP_	spinster homolog 1 [Homo sa	528	56630	6.6	11
2719	3	9.72E-05	5	0.000939	0.103579		ENSG00000137824:E	FAM82C			gi|8922532|ref|NP_0	family with sequence similari	470	52118	5.1	1
2720	3	9.44E-05	4	0.000167	0.563629		ENSG00000100292:E	HMOX1			gi|4504437|ref|NP_0	heme oxygenase (decyclizing	288	32819	8.2	1
2721	3	9.39E-05	2	0.000158	0.594558		ENSG00000185000:E	LOC727765			gi|169172688|ref|XP	PREDICTED: hypothetical pr	488	55278	9.3	9
2722	3	9.25E-05	6	0.001166	0.079345		ENSG00000101337:E	TM9SF4			gi|7662028|ref|NP_0	transmembrane 9 superfamil	625	72541	6.7	9
2723	3	9.02E-05	5	0.000681	0.132558		ENSG00000135218:E	CD36			gi|48375180|ref|NP_	CD36 antigen [Homo sapiens	472	53053	8	2
2724	3	8.9E-05	6	0.001285	0.069216		ENSG00000112697:E	TMEM30A			gi|8922720|ref|NP_0	transmembrane protein 30A	361	40684	8.6	2
2725	3	8.67E-05	4	5.01E-05	1.729503		ENSG00000160216:E	AGPAT3			gi|83267874|ref|NP_	1-acylglycerol-3-phosphate O	376	43381	8.7	3
2726	3	8.54E-05	5	0.000243	0.351189		ENSG00000120697:E	ALG5			gi|7019323|ref|NP_0	asparagine-linked glycosylati	324	36946	9.3	1
2727	3	8.15E-05	4	8.54E-05	0.954136		ENSG00000168818:E	STX18			gi|8394376|ref|NP_0	syntaxin 18 [Homo sapiens]	335	38674	5.5	1
2728	3	7.8E-05	6	0.000665	0.117157		ENSG00000105701:E	FKBP8			gi|52630440|ref|NP_	FK506-binding protein 8 [Hor	413	44649	4.8	1
2729	3	7.76E-05	4	0.00057	0.13613		ENSG00000164897:E	TMUB1			gi|13899257|ref|NP_	transmembrane and ubiquitir	246	26261	5.7	3
2730	3	7.74E-05	3	5.22E-05	1.481736		ENSG00000178732:E	GP5			gi|4758460|ref|NP_0	glycoprotein V (platelet) [Hor	560	60959	9.6	1
2731	3	7.23E-05	6	0.001067	0.067691		ENSG00000143418:E	LASS2			gi|32455256|ref|NP_	LAG1 longevity assurance 2	380	44876	9	5
2732	3	7.01E-05	5	0.000139	0.504088		ENSG00000125844:E	RRBP1			gi|110611220|ref|NP	ribosome binding protein 1 [H	977	108655	5.5	1
2733	3	6.79E-05	6	0.000714	0.095056		ENSG00000172893:E	DHCR7			gi|119943112|ref|NP	7-dehydrocholesterol reducta	475	54489	8.7	6
2734	3	6.21E-05	7	0.004408	0.014082		ENSG00000138760:E	SCARB2			gi|5031631|ref|NP_0	scavenger receptor class B,	478	54290	5.1	2
2735	3	5.97E-05	3	2.45E-05	2.434015		ENSG00000137845:E	ADAM10			gi|4557251|ref|NP_0	ADAM metallopeptidase dom	748	84142	7.8	1
2736	3	5.57E-05	2	3.13E-05	1.780649		ENSG00000080815:E	PSEN1			gi|4506163|ref|NP_0	presenilin 1 [Homo sapiens]	467	52668	5.3	9
2737	3	5.44E-05	3	0.000309	0.176143		ENSG00000108587:E	GOSR1			gi|4758456|ref|NP_0	golgi SNAP receptor complex	250	28613	9.4	1
2738	3	5.12E-05	2	7.66E-05	0.668412		ENSG00000071553:E	ATP6AP1			gi|17136148|ref|NP_	ATPase, H+ transporting, lys	470	52026	6.1	2
2739	3	4.71E-05	5	2.71E-05	1.735649		ENSG00000157637:E	SLC38A10			gi|83921602|ref|NP_	solute carrier family 38, mem	1119	119762	5.7	9
2740	3	4.65E-05	6	0.000432	0.107553		ENSG00000198162:E	MAN1A2			gi|5729913|ref|NP_0	mannosidase, alpha, class 1	641	73004	7.6	1
2741	3	4.54E-05	5	0.000139	0.326631		ENSG00000160746:E	TMEM16K			gi|94536803|ref|NP_	transmembrane protein 16K	660	76329	7.4	8
2742	3	4.38E-05	1	1.25E-05	3.502346		ENSG00000121542:E	SEC22A			gi|14591919|ref|NP_	SEC22 vesicle trafficking pro	307	34948	8.2	4
2743	3	3.76E-05	5	0.000339	0.11099		ENSG00000165782:E	TMEM55B			gi|154816184|ref|NP	transmembrane protein 55B	277	29470	8.9	2

rk	NEs detected # out of 10 runs	NEs dNSAF_A VG	MMs detected # out of 8 runs	MMs dNSAF_A VG	NEs:MMs	Detected in Mitochondria	ORTHO_GROUP	GENE_NAME	NET_NAME	Location & Gene Expression Data	Locus	Description	Length	MW	pI	PredHel	SIGNALP_HMM_TMHMM_TYPE (S=signal; A= Anchor; Q= none)	SIGNALP_HMM_POS	SIGNALP_HMM_PROB	RESTING LYMPHOCYTES NEs: HsNaOH-NE_NT_lymphocytes_CNBr_T1_1_dNSAF	HsNaOH-NE_NT_lymphocytes_T1_1_dNSAF	HsNaOH-NE_NT_lymphocytes_PK_1_dNSAF	HsSD-NE_NT_lymphocytes_T1_1_dNSAF	HsSD-NE_NT_lymphocytes_PK_1_dNSAF	NT-dNEs Detected # Out of 5	NT-dNSAF AVG	NT-dNSAF SDV	PHA-TREATED LYMPHOCYTES NEs: HsNaOH-NE_PHA_lymphocytes_CNBr_T1_1_dNSAF	HsNaOH-NE_PHA_lymphocytes_T1_1_dNSAF	HsNaOH-NE_PHA_lymphocytes_PK_1_dNSAF	HsSD-NE_PHA_lymphocytes_T1_1_dNSAF	HsSD-NE_PHA_lymphocytes_PK_1_dNSAF	PHA-dNEs Detected # Out of 5	PHA-dNSAF AVG	PHA-dNSAF SDV	MMs: MmNaOH-MM_liver_CNBrT1_1_dNSAF	MmNaOH-MM_liver_CNBrT1_2_dNSAF	RnNaOH-MM_liver_T1_1_dNSAF	RnNaOH-MM_liver_T1_2_dNSAF	RnNaOH-MM_liver_T1_3_dNSAF	RnNaOH-MM_liver_T1_4_dNSAF	RnNaOH-MM_liver_PK_1_dNSAF	RnNaOH-MM_liver_PK_2_dNSAF	Region_Note	GO_Component	GO_Function
2744	3	3.47E-05	2	2.67E-05	1.300175			ENSGO00000004693	PEX3			4505727(ref)NP_0	peroxisomal biogenesis facto	373	42140	8.2		0	o	A	31	0.043	0	6.25E-05	0	9.47E-05	0	2	3.93E-05	4.73E-05	0	0	0.000122	0	0	0	0	0	0.000128	8.42E-05	0	Peroxin-3. Peroxin-3 is a	integral to peroxisomal	protein binding [pmid
2745	3	3.39E-05	4	6.27E-05	0.539995			ENSGO00000135048	ETMEM2			gi	7019555	ref	NP_	transmembrane protein 2 [H	365	39783	8.3		1	83-105o	Q	22	0	0	5.06E-05	0	2.55E-05	0	2	1.9E-05	2.42E-05	0	0	0.000195	0	0	0	0	0	0.000268	0.000131	0	7.92E-05	2.36E-05	0		integral to membrane;	
2746	3	3.37E-05	3	7.76E-05	0.434741			ENSGO00000170557	DPP4			gi	7185694	ref	NP_	dipeptidyl peptidase IV [Homo	766	88531	6.2		1	27-29o	A	23	0.622	0	2.31E-05	0	0.0001	0	2	1.57E-05	1.99E-05	0	0	0.000582	0	0	0	0	0	0.000843	0.00577	0.004578	0.005265	0.005478	0.005367	Dipeptidyl peptidase IV	integral to membrane;	aminopeptidase activity;
2747	3	3.22E-05	3	7.76E-05	0.414741			ENSGO00000130150	MOSPD2			gi	22749197	ref	NP_	motile sperm domain contain	519	59746	6		1	o403-515	Q	0	0	0	3.41E-05	0	0	0	2	3.56E-05	4.31E-05	0	0	0.000195	0	0	0	0	0	0.000236	0.000134	0	0.000231		0		Sec14p-like lipid-binding	structural molecule activity
2748	3	3.16E-05	3	0.000199	0.158744			ENSGO00000116199	FAM20B			gi	7662150	ref	NP_	hypothetical protein LOC991	409	48433	6.9		1	7-25o	S	25	0.537	0	5.7E-05	0	8.64E-05	0	2	3.59E-05	4.31E-05	0	0	0.000111	0.00031	0	0	0	0	0.000173	0.00031	0	0.000153		0		Protein of unknown function	
2749	3	2.68E-05	3	0.000465	0.057588			ENSGO00000100926	ETMB7			gi	21361315	ref	NP_	transmembrane 9 superfamil	606	68981	7.2		9	o236-258S	S	28	0.99	0	7.7E-05	0	6.33E-05	0	2	1.92E-05	3.85E-05	0	0	0.000157	0.000308	0.00408	0.00283	0.00425	0.00426	Endomembrane protein 70.	integral to membrane [pmid	transporter activity
2750	3	1.34E-05	5	0.000302	0.044429			ENSGO00000119787	ARL6IP2			gi	11641303	ref	NP_	ADP-ribosylation factor-like 6	579	66159	6		1	o475-497d	Q	41	0.025	0	4.03E-05	0	0	0	1	1.01E-05	2.01E-05	2.82E-05	0	0.000792	0.00059	0.000165	0.000843	0.000223	0		Guanylate-binding protein		GTP binding; GTPase
2751	3	1.33E-05	1	5.51E-06	2.421633			ENSGO00000164889	SLC4A2			gi	15607147	ref	NP_	solute carrier family 4, anion	1241	137009	6.3		11	o709-731i	Q	0	0	0	5.64E-05	0	1.42E-05	0	2	1.77E-05	2.67E-05	0	0	0	0	0	0	0	0	9.04E-06	1.81E-05	0				
2752	3	1.3E-05	2	0.003606	0.003606			ENSGO00000242445	RETSAT			gi	31377748	ref	NP_	all-trans-13,14-dihydroretinol	610	66793	8.3		1	12-24o	S	19	0	0	3.68E-05	0	2.9E-05	0	2	1.68E-05	1.98E-05	0	0	0.000521	0.004702	0.00271	0.005924	0.003932	0.003316	0.002721	Phytoene dehydrogenase	endoplasmic reticulum;	all-trans-retinol 13,14-
2753	3	6.69E-06	3	1.78E-05	0.375569			ENSGO00000075568	ETMEM131			gi|150456424|ref|NP	RW1 protein [Homo sapiens]	1883	205137	8.6		2	o1083-1101	S	60	0.988	0	1.24E-05	0	0	0	1	3.1E-06	6.19E-06	1.73E-05	0	0	0	0	0	0	0	2.03E-05	1.22E-05	0	1.74E-05		0				
2754	3	0.000525	4	0.000259	2.15133			ENSGO00000132591	CSTC			gi	24306477	ref	NP	DC2 protein [Homo sapiens]	149	16933	9.1		1	132-154S	S	41	0.008	0.003265	0.00039	0	0	0	1	0.000117	0.00154	0	0	0.000101	0.000101	0.00009	0.000333	0	0.000659	0.000206					
2755	2	0.00043	4	0.001843	0.233469			ENSGO00000136986	DERL1			gi|13236510|ref|NP	Der1-like domain family, mer	251	28801	9.5		5	20-42o57-Q	Q	33	0.065	0	0.001208	0	0	0	1	0.000302	0.000604	0	0	0.000359	0.000101	0	0	0	0	0.000599	0.001117	0.005284	0.007441	0.001659	0.003361		Der1-like family. The	endoplasmic reticulum [pmid	ubiquitin ligase activity
2756	2	0.000414	3	0.00028	1.478182			ENSGO00000158604	ETMED4			gi|33457308|ref|NP_	transmembrane emp24 prote	227	25943	8.3		2	o215-341i9S	S	30	1	0	0.001632	0	0	0	1	0.000408	0.000816	0	0	0.000408	0.000816	0	0	0	0	0.000842	0.00084	0	0.000824		0		emp24/gp25L/p24	endoplasmic reticulum;	signal transducer activity
2757	2	0.000288	2	0.000157	1.837037			ENSGO00000147314	ECD			gi|27268193|ref|NP_	ecdysone receptor binding p	230	26553	7.9		2	o29-51i64-A	A	54	0.011	0.00141	0.000075	0	0	0	1	0.000305	0.000705	0	0	0.000305	0.000705	0	0	0	0	0.000489	0.000488	0	0.000489		0		Ecdysone receptor binding protein.	endoplasmic reticulum [pmid	cholesterol delta-isomerase
2758	2	0.00026	3	5.71E-05	4.549354			ENSGO00000145354	CISD2			gi|56605994|ref|NP	CDGSH iron sulfur domain 2	135	15278	9.6		1	o38-60i	A	59	0.012	0	0.001555	0	0.000523	0	2	0.00052	0.000733	0	0	0	0	0	0	0	0	0.000127	0.000255	0	0.000127		0		CDGSH-type zinc finger.	protein complex [pmid	
2759	2	0.00025	3	7.66E-05	3.267974			ENSGO00000164308	ALG11			gi|58892492|ref|NP	asparagine-linked glycosylat	492	55693	8.5		2	o240-252A	A	42	0.002	0	0	0.001909	0	0	0	1	0.000477	0.000955	0	0	0.000477	0.000955	0	0	0	0	0.000221	0.000198	0.000199		0		Glycosyl transferases		
2760	2	0.000198	3	0.002605	0.075959			ENSGO00000147383	NSDHL			gi	30305160	ref	NP_	NADH dehydrogenase(ubiqui	373	41900	8.1		2	o296-318i	Q	0	0	0	0.000561	0	0	0	1	0.000141	0.000281	0	0	0.000123	0	0	0	0	0	0.000256	0.000511	0.001221	0.001548	0.004068	0.002906	0.004119	0.003243	0.00171	0.002034	Male sterility protein. This	endoplasmic reticulum [pmid	3-beta-hydroxy-delta5-
2761	2	0.000122	5	0.001104	0.110221			ENSGO00000728491	DERL2			gi|31455614|ref|NP	Der1-like domain family, mer	239	27567	7.3		4	i57-79o99i	Q	34	0.039	0	0.000786	0	0	0	1	0.000197	0.000393	0	0	0.000188	0	0	0	0	0	1.69E-05	9.39E-05	0.0037	0	0	0	0	0	0	0	1.69E-05	0.000146		Der1-like family. The	endoplasmic reticulum [pmid	protein binding [pmid
2762	2	0.00011	4	0.000468	0.219988			ENSGO00000169446	ETMEM32			gi|27334000|ref|NP	transmembrane protein 32 [H	131	14989	6.9		1	7-25o	S	26	0.039	0	0.000534	0	0	0	1	0.000134	0.000267	0	0	0.000134	0.000267	0	0	0	0	9.56E-05	0.000171	0	0.000203		0			endoplasmic reticulum [pmid	
2763	2	0.000108	4	8.17E-05	1.320962			ENSGO00000119004	CYP20A1			gi|29171730|ref|NP_	cytochrome P450, family 20,	462	52432	6.2		1	6-24o	S	30	0.919	0	5.05E-05	0.000833	0	0	0	2.000216	0.000399	0	0	0	0	0	0	0	0	0.0002	7.85E-05	0.000104	0.000271		0		Cytochrome P450.	membrane	heme binding; iron ion
2764	2	0.000105	3	8.73E-05	1.201949			ENSGO00000105409	ATP1A3			gi|22748667|ref|NP_	Na+/K+ -ATPase alpha 3 isoft	1013	111748	5.4		8	i88-110o12	Q	0	0	0.0008	3.95E-05	0	0	0	2	0.00021	0.000394	0	0	0.000243	0.00023	6.15E-05	0	0	0	0.000394	0.00243	0	0.000117		0		haloacid dehalogenase-like	membrane; sodium;potassium	ATP binding; hydrolase
2765	2	9.46E-05	2	0.000629	0.188601			ENSGO00000146162	ECM1L			gi|56750000|ref|NP	BEC11-like 1 [Homo sapiens	179	20625	9.5		1	i21-43s	Q	33	0	0	0.000425	0	0	0	1	0.000622	0.000622	0	0	0.000622	0.000622	0	0	0	0	0.000177	0.000313	0.00247	0	0	0	0	0	0	0	0.000177	0.000312		Signal peptidase I		serine-type peptidase
2766	2	8.42E-05	6	0.00564	0.014937			ENSGO00000172270	BSG			gi|38372923|ref|NP	basigin isoform 4 [Homo sapi	205	22764	5.5		1	o143-165i	Q	0	0	0	0.000455	0	0	0	1	0.000114	0.000228	0	0	0.000219	0	0	0	0	0	5.47E-05	0.000109	0	0.000219		0		Immunoglobulin V-set	integral to membrane;	immunoglobulin;
2767	2	8.38E-05	2	0.000255	0.329153			ENSGO00000106638	TBL2			gi	75497939	ref	NP_	transducin (beta)-like 2 [Hom	447	49798	9.4		1	i9-31s	S	29	0.985	0	0.00047	0	0	0	1	0.000117	0.000235	0	0	0.000201	0	0	0	0	0	5.02E-05	2.00E-05	0.005001	0.001268	0.001505	0.000369	0.001415	0.000348	0	0	WD40 domain, found in a		
2768	2	8.2E-05	5	0.000211	0.388963			ENSGO00000134153	C15orf24			gi	39910346	ref	NP_	chromosome 15 open readin	242	26471	9.2		1	o160-182i	S	24	1	0	0.000193	0	0	0	1	4.82E-05	9.64E-05	0	0	0.000464	0	0	0	0	0	0.000116	0.000232	0	0.000384	0.000452	0.0002	0	0.00027	0.000382			cytoplasm [pmid 10873569];	purine nucleotide binding	
2769	2	8.13E-05	2	0.000113	0.7186			ENSGO00000175274	TP53I11			gi	11564870	ref	NP	p53-induced protein [Homo s	189	21054	9.6		1	i61-83o10Q	Q	0	0	0	0.00037	0	0.00028	0	1	0.000163	0.000191	0	0	0	0	0	0	0	0	0.000267	0	0	0.000267		0.000639	0				
2770	2	7.52E-05	2	2.97E-05	2.531676			ENSGO00000134255	CEPT1			gi|56116223|ref|NP	choline/ethanolamineprosph	416	45554	8.2		1	i83-105o11	Q	38	0	0	0.000226	0	0	0	1	5.61E-05	0.000112	0	0	0.000378	0	0	0	0	0	9.44E-05	0.000189	0	0.000151		0		CEPT family.	integral to membrane [pmid	ethanolaminephosphotransfe
2771	2	7.19E-05	2	9.38E-05	0.7661			ENSGO00000886488	EALN2			gi|118026921|ref|NP	asparagine-linked glycosylat	618	70787	8.7		6	i136-158o	Q	24	0.001	0	0.000113	0	0	0	1	2.83E-05	5.66E-05	0	0.26E-05	0	0	0	0	0	1.000115	0.000192	0.000721	0	0	0	0	0	0	0	0.000721	0.000192		A subgroup of the band 7		
2772	2	6.95E-05	4	0.000153	0.522556			ENSGO00000107959	ENPP5			gi	54537092	ref	NP	ER lipid raft associated 1 [H	413	45846	8.9		1	i73-90o	Q	51	0.209	0.000393	0	0	0	0	1	9.82E-05	0.000393	0	0	0.000393	0	0	0	0	0	4.07E-05	8.15E-05	0	0.000615		7.58E-05	0	0.000140			
2773	2	6.76E-05	4	0.000457	0.147965			ENSGO00000103466	STX4			gi	24149560	ref	NP	syntaxin 4 [Homo sapiens]	297	34180	6.3		1	i274-296o	Q	0	0	0	0.000314	0	0	0	1	7.85E-05	0.000157	0	0	0.000227	0	0	0	0	0	0.000134	0.000365	0	5.25E-05		0.000103	Syntaxin N-terminus	integral to membrane;	protein binding [pmid
2774	2	6.02E-05	6	0.000906	0.066431			ENSGO00000124164	VAPB			gi|47590302|ref|NP	VAMP-associated protein B/	243	27228	7.3		1	o220-242i	Q	17	0	0	0.000297	0	0	0	1	7.42E-05	0.000148	0	0	0.000185	0	0	0	0	0	0.001142	0.001717	0.002178	0.00058	0.001243	0.000391		Immunoglobulin V-set	integral to plasma membrane	structural molecule activity
2775	2	5.86E-05	2	7.02E-05	0.835822			ENSGO00000170961	CD48			gi	21361757	ref	NP	CD48 molecule [Homo sapie	229	25925	5.2		1	o225-242i	S	29	0.994	0	0.000158	0	0	0	1	0.000227	0.000227	0	0	0.000227	0	0	0	0	0	9.92E-05	0.000139	0	0.000427		0.000402			Immunoglobulin V-set	integral to plasma membrane	GPI anchor binding; protein
2776	2	5.71E-05	2	2.95E-05	1.933309			ENSGO00000182544	MFSD5			gi	31543150	ref	NP	major facilitator superfamily	450	49737	7.8		10	o45-64r77i	S	27	0	0	0.000207	0	0	0	1	5.18E-05	0.000104	0	0	0.000249	0	0	0	0	0	6.23E-05	0.000125	0	0					Protein of unknown function		
2777	2	5.54E-05	2	0.000105	0.527206			ENSGO00000213463	SYNJ2BP			gi	157388993	ref	NP	synaptojanin 2 binding protein	145	15928	6.3		1	o117-139i	Q	0	0	0	0.000322	0	0.000122	0	2	0.000111	0.000152	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
2778	2	5.52E-05	1	2.16E-05	1.183324			ENSGO00000184702	UBA2			gi|20986388|ref|NP	UBA domain containing 2 [H	309	34876	9		2	i93-115o11	Q	51	0.113	0	0.000151	0	0	0	1	3.77E-05	7.55E-05	0	0	0	0	0	0	0	0	7.26E-05	0.000145	0	0.000202		0		Ubiquitin Associated		
2779	2	5.49E-05	2	0.000292	0.187803			ENSGO00000140688	C16orf58			gi|12232403|ref|NP	hypothetical protein LOC847	468	50960	7.2		2	i248-270i	Q	22	0.001	0	0.000199	0	0	0	1	4.98E-05	9.97E-05	0	0	0.000024	0	0	0	0	0	5.99E-05	0.00012	0.001897	0	0	0	0	0	0	0	0.001897	0		Protein of unknown		
2780	2	4.88E-05	2	5.4E-05	0.905106			ENSGO00000159399	HAPR1			gi	21071001	ref	NP	autocrine motility factor recep	643	70980	6.8		2	i83-102i12	S	38	0.631	0	0.000181	0	0	0	1	4.53E-05	9.23E-05	0	0	0	0	0	0	0	0	9.23E-05	0.000138	4.14E-05	3.90E-05	RING finger (Really	endoplasmic reticulum;	ligase activity; metal ion
2781	2	4.82E-05	6	0.00069	0.06981			ENSGO00000058931	LAMP2			gi	4504957	ref	NP	lysosomal-associated membra	410	44961	5.6		1	o378-400i	S	29	0.991	0	5.69E-05	0	0	0	1	1.42E-05	8.55E-05	0	0	0.000328	0	0	0	0	0	1.82E-05	0.000164	0	0.000113	0.000971	0.000484	0.001098	0.001724	0.001194	0.001195	Lysosome-associated	integrate; late	
2782	2	4.77E-05	6	0.000246	0.19361			ENSGO00000168763	CNNM3			gi	40068047	ref	NP	cyclin M3 isoform 2 [Homo s	659	70632	7.1		1	i190-212o2	S	28	0.017	0	0.000177	0	0	0	1	4.42E-05	8.85E-05	0	0	0.000204	0	0	0	0	0	5.11E-05	0.000102	0	0.000249	0.000565	0.000136	0.000268	0.000369	0.000174	This cd contains two		DNA binding; DNA-directed
2783	2	3.02E-05	4	4.48E-05	0.674295			ENSGO00000131469	UBE2J1			gi	37577122	ref	NP	ubiquitin-conjugating enzyme	318	35190	8.6		1	i128-308o	Q	38	0.631	0	0.000181	0	0	0	1	3.62E-05	7.24E-05	0	0	0.000181	0	0	0	0	0	3.62E-05	7.24E-05	0	0.000181		7.95E-05	0	0.000104	ubiquitin-conjugating	endoplasmic reticulum;	ligase activity; ubiquitin-
2784	2	4.18E-05	2	0.000198	0.211182			ENSGO00000070961	ATP2B1			gi	48255945	ref	NP	plasma membrane calcium A	1220	134685	5.9		7	o377-399w	Q	0	0	0	2.68E-05	0.000308	0	0	0	2.83E-05	0.000015	0	0	0.000286	0.000306	0.000341	0.000235	haloacid dehalogenase-like	integral to plasma membrane	ATP binding; calcium ion
2785	2	4.18E-05	2	0.000338	0.124638			ENSGO00000137414	FAMBA1			gi|7705268|ref|NP	family with sequence similari	413	44123	7.2		1	o255-277i	Q	0	0	0	0.000228	0	0	0	1	5.65E-05	0.000113	0	0	0.000109	0	0	0	0	0	1.22E-05	5.43E-05	0.002216	0.000468	0	0	0	0	0	0	0.002216	0		RDD family. This family of		
2786	2	4.11E-05	3	0.000243	0.345515			ENSGO00000135821	PIKFYVE			gi|28826997|ref|NP	kiphosphoinositide phosphoryl	1423	137480	6.2		1	i9-112-134d	Q	19	0.006	0	0.000275	0	0	0	1	6.86E-05	0.000138	0	0	0.000275	0	0	0	0	0	1.33E-05	2.66E-05	0	0.000877	4.35E-05	0.304	3.71E-05	0	0	0	0.000877		Endonuclease/Exonuclease/	integral to membrane	hydrolase activity;
2787	2	3.76E-05	4	2.9E-05	1.294621			ENSGO00000172601	ATP2C1			gi	48762685	ref	NP	calcium-transporting ATPase	919	100577	6.7		8	i83-100o11	Q	0	0	0	0.000203	0	0	0	1	5.08E-05	0.000102	0	0	0.000146	0	0	0	0	0	2.44E-05	4.88E-05	0	0.000117	7.89E-05	0.515	6.68E-05	0.000152	0.000117		ATP binding; calcium ion	integral to membrane [pmid	metal ion transporter activity
2788	2	3.73E-05	3	3.45E-05	0.687753			ENSGO00000100292	CHPF			gi	40254000	ref	NP	soluble carrier family 39 (zinc	323	36497	8.6		7	i5-27o37-A	A	23	0.469	0	0.000275	0	0	0	1	6.86E-05	0.000137	0	0	0.000137	0	0	0	0	0	1.95E-05	3.91E-05	0	0.000109	0.000192	0.000192	0.000192	0.000192	0.000192		Predicted divalent heavy-		
2789	2	3.64E-05	2	5.19E-05	0.701782			ENSGO00000125991	EROG13			gi	38327615	ref	NP	serologically defined breast c	388	43772	6		1	o20-42i34	A	47	0.001	0	6.01E-05	0	0	0	1	1.5E-05	3.01E-05	0	0	0.000231	0	0	0	0	0	5.78E-05	0.000116	0	0.000104	0.000164		0	0.000147			Protein of unknown function	endoplasmic reticulum; ER-	protein binding [pmid
2790	2	3.58E-05	2	4.64E-05	0.771744			ENSGO00000082821	SYPL1			gi|33239443|ref|NP	synaptophysin-like 1 isoform	241	26412	7.2		3	i69-121o11	Q	36	0.036	0	0.000194	0	0	0	1	4.84E-05	9.68E-05	0	0	9.31E-05	0	0	0	0	0	1.23E-05	4.65E-05	0	0	0	0	0	0	0	0				Membrane-associating	integrate to plasma membrane	transporter activity
2791	2	3.55E-05	2	8.88E-05	0.400234			ENSGO00000109616	ERG27B			gi|21469199|ref|NP	LBA domain containing 2 [H	325	36916	9.6		1	i21-43o	S	47	0.531	0	0.000253	0	0	0	1	6.32E-05	0.000126	0	0	6.96E-05	0	0	0	0	0	1.58E-05	3.16E-05	0	0.000126	0.000279	0	0.000253	0	0	0			Dehydrogenases with		oxidoreductase activity
2792	2	3.42E-05	2	3.7E-05	0.923403			ENSGO00000121940	CLCC1			gi|15270970|ref|NP	Mid-1-related chloride chann	551	62023	5.6		1	o185-207d	S	19	0.999	0	0	0	0	0	1	0	0	0.97E-05	0	0.000204	0	0	0	0	0	6.83E-05	9.6E-05	0	0.000171	6.7E-05	0	5.79E-05	0	0	0						
2793	2	3.33E-05	2	1.5E-05	2.222619			ENSGO00000159184	NINS			gi|23809351|ref|NP	kidneifowin 5 [Homo sapiens	340	37124	9.3		1	i109-131o11	S	24	0.194	0	6.86E-05	0	0	0	1	1.72E-05	3.43E-05	0	0	0.000168	0	0	0	0	0	1.45E-05	9.9E-05	0	0	0	0	0	0	0	0				Tricarboxylate carrier;	integrate to membrane;	cation transportor activity;
2794	2	3.31E-05	2	2.58E-05	1.286043			ENSGO00000196715	VKORC1L1			gi	46309463	ref	NP	vitamin K epoxide reductase	176	19836	9.1		2	i92-114o12	S	34	0.724	0	0.000265	0	0	0	1	6.63E-05	0.000133	0	0	0	0	0	0	0	0	0	0	0	0	0	0				Vitamin K epoxide		
2795	2	3.18E-05	3	8.59E-05	0.370035			ENSGO00000130303	BST2			4757876(ref)NP_0	bone marrow stromal cell ant	180	19769	5.6		1	122-44o	A	39	0	0	0.00013	0	0	0	1	3.24E-05	6.48E-05	0	0	0.000125	0	0	0	0	0	3.12E-05	6.23E-05	0	0	0.000316	0.00028	9.1E-05	0	0	0						
2796	2	3.03E-05	2	1.06E-05	2.86128			ENSGO00000159110	IFI16			gi	21361315	ref	NP	Ifi/p1 interacting factor homo	283	31175	7.4		1	i125-145o12	S	35	0.967	0	8.81E-05	0	0	0	1	1.76E-05	3.52E-05	0	0	0.000588	0	0	0	0	0	7.93E-05	0.000106	0	0.000588	0.000619		0.000619				YIF1. YIF1 (Yip1	integrate to membrane;	
2797	2	2.96E-05	2	3.23E-05	0.918321			ENSGO00000140199	SLC12A5			gi|11022444|ref|NP	solute carrier family 12, mem	150	127617	7.1		12	o186-208d	Q	21	0	0	8.11E-05	0	0	0	1	2.03E-05	4.06E-05	0	0	0.000159	0	0	0	0	0	1.39E-05	7.8E-05	0	5.07E-05	0.000139	0	8.11E-05	0	0	0						
2798	2	2.92E-05	2	6.87E-05	0.424432			ENSGO00000154122	ANKH			gi	16905507	ref	NP	progressive ankylosis protein	492	54241	7.9		7	i86-105o11	Q	27	0.062	0	0.000142	0	0	0	1	3.56E-05	7.11E-05	0	0	9.12E-05	0	0	0	0	0	2.28E-05	4.56E-05	0	0.000186	0.000364		0				Progressive ankylosis	integrate to membrane [pmid	inorganic diphosphate
2799	2	2.84E-05	2	0.000861	0

rk	NEs detected # out of 10 runs	NEs dNSAF_AVG	MMs detected # out of 8 runs	MMs dNSAF_AVG	NEs:MMs	ORTHO_GROUP	GENE_NAME
2890	8	0.000938	6	0.00024	3.905729	ENSG00000167004:E	PDIA3
2891	8	0.000684	6	0.000221	3.092866	ENSG00000188229:E	TUBB2C
2892	8	0.000244	6	0.000113	2.161875	ENSG00000197102:E	DYNC1H1
2893	7	0.002217	5	0.001774	1.249955	ENSG00000174903:E	RAB1C
2894	7	0.000748	6	0.001016	0.736069	ENSG00000197043:E	ANXA6
2895	7	0.000748	6	0.001779	0.420218	ENSG00000141367:E	CLTC
2896	7	0.000661	2	0.000243	2.715493	ENSG00000174444:E	RPL4
2897	7	0.000608	6	0.000755	0.80573	ENSG00000116459:E	ATP5F1
2898	7	0.000465	3	0.000207	2.247132	ENSG00000115840:E	SLC25A12
2899	7	0.000401	6	0.000264	1.518697	ENSG00000165280:E	VCP
2900	7	0.000292	7	0.000616	0.473194	ENSG00000127463:E	KIAA0090
2901	6	0.002009	1	0.000564	3.562584	ENSG00000075785:N	RAB7A
2902	6	0.001673	6	0.001172	1.427326	ENSG00000070831:E	CDC42
2903	6	0.001161	6	0.002287	0.507923	ENSG00000149273:E	RPS3
2904	6	0.000849	3	0.000172	4.935098	ENSG00000180879:E	SSR4
2905	6	0.000766	5	0.000733	1.045552	ENSG00000119396:E	RAB14
2906	6	0.000758	5	0.000199	3.804482	ENSG00000171560:E	FGA
2907	6	0.000608	4	0.000294	2.067803	ENSG00000159251:E	ACTC1
2908	6	0.000443	5	0.000287	1.545134	ENSG00000113194:E	UBXD8
2909	6	0.000427	4	0.000247	1.730655	ENSG00000170889:E	RPS9
2910	6	0.000407	3	9.33E-05	4.35747	ENSG00000130402:E	ACTN4
2911	6	0.000395	6	0.000242	1.633538	ENSG00000007923:E	DNAJC11
2912	6	0.000354	3	0.000152	2.333601	ENSG00000147403:E	RPL10
2913	6	0.000353	6	0.001287	0.274159	ENSG00000185624:E	P4HB
2914	6	0.000286	4	9.13E-05	3.135216	ENSG00000215301:E	DDX3X
2915	6	0.000283	4	0.000117	2.431656	ENSG00000172354:E	GNB2
2916	6	0.000265	6	0.00014	1.887388	ENSG00000143149:E	ALDH9A1
2917	6	0.000182	4	0.000147	1.242427	ENSG00000197157:E	SND1
2918	6	0.000181	5	0.000385	0.469384	ENSG00000107581:E	EIF3A
2919	6	0.000168	4	3.67E-05	4.564441	ENSG00000089154:E	GCN1L1
2920	6	0.000113	6	0.000268	0.421488	ENSG00000169710:E	FASN
2921	6	6.29E-05	2	1.31E-05	4.806003	ENSG00000101310:E	SEC23B
2922	6	6.22E-05	4	3.04E-05	2.045429	ENSG00000115306:E	SPTBN1
2923	5	0.001212	6	0.002751	0.440532	NA:ENSMUSG00000	RPL15
2924	5	0.000997	6	0.000483	2.065604	ENSG00000179218:E	CALR
2925	5	0.000907	4	0.00036	2.519409	ENSG00000185236:E	RAB11B
2926	5	0.000906	5	0.000226	4.013467	ENSG00000083845:E	RPS5
2927	5	0.000743	4	0.000335	2.215737	ENSG00000104388:E	RAB2A
2928	5	0.000714	6	0.000899	0.793926	ENSG00000168374:E	ARF4
2929	5	0.00069	4	0.000226	3.049607	ENSG00000204628:E	GNB2L1
2930	5	0.000623	6	0.000829	0.750765	ENSG00000171564:E	FGB
2931	5	0.000549	5	0.000151	3.627084	ENSG00000186676:E	EEF1G
2932	5	0.000437	6	0.000762	0.573242	ENSG00000100316:E	RPL3
2933	5	0.000428	6	0.000171	2.499664	ENSG00000148303:N	RPL7A
2934	5	0.000313	1	0.000898	0.348854	ENSG00000112081:E	SFRS3
2935	5	0.00028	4	0.000104	2.701848	ENSG00000159322:E	ADPGK
2936	5	0.000271	6	0.000908	0.298968	ENSG00000161016:E	RPL8
2937	5	0.000263	3	0.000121	2.178562	ENSG00000175390:E	EIF3F
2938	5	0.000233	4	0.000263	0.884215	ENSG00000110700:E	RPS13
2939	5	0.000196	5	0.000138	1.425584	ENSG00000129083:E	COPB1
2940	5	0.000186	1	3.76E-05	4.954721	ENSG00000120805:E	ARL1
2941	5	0.000186	7	0.000603	0.308701	ENSG00000143870:E	PDIA6
2942	5	0.000162	5	0.000127	1.279888	ENSG00000085719:E	CPNE3
2943	5	0.000159	5	0.000387	0.410921	ENSG00000120063:E	GNA13
2944	5	0.000144	6	0.001879	0.076453	ENSG00000018510:E	AGPS
2945	5	0.000136	3	5.67E-05	2.393371	ENSG00000147065:E	MSN
2946	5	0.000136	3	3.26E-05	4.160518	ENSG00000122218:E	COPA
2947	5	0.00013	2	5.3E-05	2.461691	ENSG00000164111:E	ANXA5
2948	5	0.00013	5	0.000155	0.837525	ENSG00000166224:E	SGPL1
2949	5	0.000117	3	0.000148	0.788599	ENSG00000182934:E	SRPR
2950	5	9.96E-05	6	0.000474	0.210357	ENSG00000108828:E	VAT1
2951	5	9.43E-05	3	9.79E-05	0.963017	ENSG00000131473:E	ACLY
2952	5	9.16E-05	2	3.33E-05	2.751799	ENSG00000173786:E	CNP
2953	5	8.16E-05	2	5.91E-05	1.381784	ENSG00000198356:E	ASNA1
2954	5	8.15E-05	5	0.000114	0.712433	ENSG00000079805:E	DNM2
2955	5	8.05E-05	4	0.000173	0.46571	ENSG00000166333:E	ILK
2956	5	6.27E-05	6	7.98E-05	0.785848	ENSG00000073969:E	NSF
2957	5	5.43E-05	3	5.79E-05	0.93798	ENSG00000167881:E	SRP68
2958	5	2.76E-05	2	1.26E-05	2.198345	ENSG00000204843:E	DCTN1
2959	5	2.08E-05	2	1.39E-05	1.497049	ENSG00000198793:E	FRAP1
2960	5	1.72E-05	3	1.54E-05	1.11428	ENSG00000162688:E	AGL
2961	5	1.16E-05	1	3.88E-06	2.99428	ENSG00000124942:E	AHNAK
2962	4	0.000641	3	0.000214	2.996937	ENSG00000178741:E	COX5A
2963	4	0.000584	6	0.001399	0.417375	ENSG00000138326:E	RPS24
2964	4	0.00044	3	0.00017	2.590413	ENSG00000142534:E	RPS11
2965	4	0.000292	5	0.000195	1.49351	ENSG00000089009:E	RPL6
2966	4	0.000277	6	0.004841	0.057236	ENSG00000198189:E	HSD17B11
2967	4	0.000233	6	0.00189	0.123339	ENSG00000072042:E	RDH11
2968	4	0.000208	6	0.000316	0.659179	ENSG00000138138:E	ATAD1
2969	4	0.00019	4	0.000156	1.214935	ENSG00000130313:E	PGLS
2970	4	0.000173	5	0.000262	0.658161	ENSG00000100280:E	AP1B1
2971	4	0.000171	3	6.03E-05	2.843419	ENSG00000173801:E	JUP
2972	4	0.000167	3	5.93E-05	2.819877	ENSG00000169738:E	DCXR
2973	4	0.000141	6	0.000522	0.270647	ENSG00000087008:E	ACOX3
2974	4	0.000136	5	0.00027	0.506069	ENSG00000122359:E	ANXA11
2975	4	0.000133	3	0.000364	0.364522	ENSG00000136238:E	RAC1
2976	4	0.000115	2	2.46E-05	4.651978	ENSG00000082153:E	BZW1
2977	4	9.84E-05	4	0.000172	0.57279	ENSG00000006125:E	AP2B1
2978	4	9.01E-05	4	0.000118	0.761851	ENSG00000108588:E	CCDC47
2979	4	8.7E-05	4	0.000109	0.8005	ENSG00000184640:E	SEPT9
2980	4	8.03E-05	3	9.45E-05	0.850152	ENSG00000092108:E	SCFD1
2981	4	7.88E-05	5	7.69E-05	1.024256	ENSG00000160703:E	NLRX1
2982	4	7.87E-05	3	0.000116	0.676941	ENSG00000116005:E	PCYOX1
2983	4	6.17E-05	1	1.94E-05	3.174798	ENSG00000132394:E	EEFSEC
2984	4	6.14E-05	3	1.72E-05	3.566071	ENSG00000198959:E	TGM2
2985	4	5.95E-05	5	0.000157	0.379281	ENSG00000136051:E	KIAA1033
2986	4	5.62E-05	4	2.96E-05	1.899124	ENSG00000164307:E	ERAP1
2987	4	5.42E-05	3	3.42E-05	1.583641	ENSG00000184178:E	SCFD2
2988	4	5.34E-05	2	3.78E-05	1.413953	ENSG00000136827:E	TOR1A
2989	4	5.34E-05	2	1.79E-05	2.981573	ENSG00000092964:E	DPYSL2
2990	4	5.08E-05	1	1.15E-05	4.432192	ENSG00000100883:E	SRP54
2991	4	4.57E-05	2	1.17E-05	3.92235	ENSG00000167986:E	DDB1
2992	4	4.38E-05	1	1.14E-05	3.847659	ENSG00000065000:E	AP3D1
2993	4	4.35E-05	2	2.38E-05	1.826484	ENSG00000105220:E	GPI
2994	4	4.21E-05	3	1.17E-05	3.598922	ENSG00000132842:E	AP3B1
2995	4	4.06E-05	3	3.71E-05	1.09237	ENSG00000147507:E	LYN
2996	4	4E-05	1	9.3E-06	4.304156	ENSG00000008128:E	CDC2L2
2997	4	3.7E-05	2	1.25E-05	2.966642	ENSG00000135249:E	RINT1
2998	4	3.19E-05	1	1.25E-05	2.552058	ENSG00000164961:E	KIAA0196
2999	4	2.88E-05	6	0.000418	0.068894	ENSG00000100934:E	SEC23A
3000	4	2.84E-05	4	7.58E-05	0.373976	ENSG00000198211:E	TUBB3
3001	4	2.58E-05	4	6.11E-05	0.421586	ENSG00000113615:E	SEC24A
3002	4	2.31E-05	6	7.84E-05	0.294945	ENSG00000138674:E	SEC31A
3003	4	2.29E-05	2	2.73E-05	0.836177	ENSG00000185722:E	ANKFY1
3004	4	2.19E-05	6	0.000159	0.137873	ENSG00000136731:E	UGCGL1
3005	4	2.14E-05	2	1.72E-05	1.24626	ENSG00000122729:E	ACO1
3006	4	1.88E-05	4	3.58E-05	0.526664	ENSG00000138246:E	DNAJC13
3007	4	1.82E-05	1	3.65E-06	4.975066	ENSG00000204351:E	SKIV2L
3008	4	1.77E-05	4	2.94E-05	0.601986	ENSG00000107862:E	GBF1
3009	4	1.07E-05	2	9.83E-06	1.093328	ENSG00000100241:E	SBF1
3010	3	0.000443	4	0.00026	1.701996	ENSG00000000419:E	DPM1
3011	3	0.000263	4	0.000251	1.047965	ENSG00000167863:E	ATP5H
3012	3	0.000239	3	0.000109	2.194691	ENSG00000198755:E	RPL10A
3013	3	0.000215	4	0.000263	0.81626	ENSG00000134108:E	ARL8B
3014	3	0.00021	2	7.82E-05	2.680762	ENSG00000177889:E	UBE2N
3015	3	0.000197	5	0.000121	1.627782	ENSG00000170638:E	TRABD
3016	3	0.000184	6	0.002561	0.071938	ENSG00000130203:E	APOE
3017	3	0.000181	2	5.65E-05	3.207164	ENSG00000103035:E	PSMD7
3018	3	0.000172	5	0.00103	0.167006	ENSG00000108298:E	RPL19
3019	3	0.000133	3	9.07E-05	1.467353	ENSG00000135924:E	DNAJB2
3020	3	0.000133	3	0.000156	0.852752	ENSG00000105372:E	RPS19
3021	3	0.000125	6	0.001399	0.089145	ENSG00000126458:E	RRAS
3022	3	0.000124	3	0.000201	0.61494	ENSG00000123595:E	RAB9A
3023	3	0.000117	4	0.000594	0.196265	ENSG00000159186:E	ATP5O
3024	3	0.000108	3	0.000284	0.380572	ENSG00000177350:E	LOC728658
3025	3	9.67E-05	3	0.000222	0.435722	ENSG00000111540:E	RAB5B
3026	3	9.55E-05	1	2.41E-05	3.95949	ENSG00000133703:E	KRAS
3027	3	8.8E-05	3	0.000176	0.49903	ENSG00000060971:E	ACAA1
3028	3	7.83E-05	4	0.000413	0.18959	ENSG00000137154:N	RPS6
3029	3	7.49E-05	3	2.5E-05	2.992215	ENSG00000043822:E	PI4K2A
3030	3	7.32E-05	4	0.000106	0.687956	ENSG00000167925:E	GHDC
3031	3	6.91E-05	2	1.66E-05	4.158659	ENSG00000047056:E	WDR37
3032	3	6.73E-05	3	0.000132	0.5083	ENSG00000181524:E	RPL24
3033	3	6.19E-05	2	2.04E-05	3.032951	ENSG00000116906:E	GNPAT
3034	3	5.34E-05	1	1.53E-05	3.487158	ENSG00000169228:E	RAB24
3035	3	4.76E-05	3	0.000132	0.359891	ENSG00000079739:E	PGM1
3036	3	4.63E-05	2	6.43E-05	0.719734	ENSG00000154229:E	PRKCA

rk	NEs detected # out of 10 runs	NEs dNSAF_AVG	MMs detected # out of 8 runs	MMs dNSAF_AVG	NEs:MMs	Detected in Mitochondria	ORTHO_GROUP	GENE_NAME	NET_NAME	Location & Gene Expression Data	Locus	Description	Length	MW	pI	PredHel	TMHMM_Topology	SIGNALP_HMM_TYPE (S= signal; A= Anchor; Q= none)
3037	3	4.45E-05	1	1.54E-05	2.895044		ENSG00000105402:E	NAPA			gi|47933379|ref|NP_	N-ethylmaleimide-sensitive fa	295	33233	5.4	0	o	Q
3038	3	4.05E-05	1	1.26E-05	3.205343		ENSG00000147813:E	NAPRT1			gi|40255089|ref|NP_	nicotinate phosphoribosyltran	466	49577	5.5	0	o	Q
3039	3	3.85E-05	5	0.000158	0.244368		ENSG00000049239:E	H6PD			gi|52145310|ref|NP_	hexose-6-phosphate dehydro	791	88893	7.3	0	o	S
3040	3	3.72E-05	4	0.000189	0.197123		ENSG00000108433:E	GOSR2			gi|16905520|ref|NP_	golgi SNAP receptor complex	213	24584	8.5	0	o	Q
3041	3	3.66E-05	3	1.98E-05	1.849546		ENSG00000078061:E	ARAF			gi|4502193|ref|NP_0	v-raf murine sarcoma 3611 v	606	67585	9	0	o	Q
3042	3	3.66E-05	4	0.000114	0.321697		ENSG00000196961:E	AP2A1			gi|19913414|ref|NP_	adaptor-related protein comp	977	107546	7	0	o	Q
3043	3	3.57E-05	2	2.55E-05	1.400839		ENSG00000105379:E	ETFB			gi|4503609|ref|NP_0	electron-transfer-flavoprotein	255	27844	8.1	0	o	Q
3044	3	3.47E-05	1	1.29E-05	2.687925		ENSG00000204590:E	GNL1			gi|38788319|ref|NP_	guanine nucleotide binding p	607	68661	5.8	0	o	Q
3045	3	3.3E-05	2	1.06E-05	3.110752		ENSG00000139842:E	CUL4A			gi|57165424|ref|NP_	cullin 4A isoform 1 [Homo sa	759	87680	8.1	0	o	Q
3046	3	3.26E-05	2	1.29E-05	2.529495		ENSG00000068793:E	CYFIP1			gi|24307969|ref|NP_	cytoplasmic FMR1 interacting	1253	145182	6.9	0	o	Q
3047	3	3.25E-05	2	8.76E-06	3.70736		ENSG00000171109:E	MFN1			gi|45269137|ref|NP_	mitofusin 1 [Homo sapiens]	741	84159	6.3	0	o	Q
3048	3	3.24E-05	5	0.000272	0.119034		ENSG00000144224:E	UBXD2			gi|24307965|ref|NP_	UBX domain containing 2 [Ho	508	56778	6.4	0	o	S
3049	3	3.19E-05	1	1.39E-05	2.291151		ENSG00000170581:E	STAT2			gi|4885615|ref|NP_0	signal transducer and activat	851	97916	5.5	0	o	Q
3050	3	2.97E-05	5	0.000226	0.131221		ENSG00000197879:E	MYO1C			gi|124494238|ref|NP	myosin IC isoform a [Homo s	1063	121682	9.4	0	o	Q
3051	3	2.4E-05	5	2.43E-05	0.989591		ENSG00000196535:E	MYO18A			gi|28416946|ref|NP_	myosin 18A isoform a [Homo	2054	233113	6.3	0	o	Q
3052	3	2.3E-05	1	6.66E-06	3.447982		ENSG00000198380:E	GFPT1			gi|4503981|ref|NP_0	glucosamine-fructose-6-phos	681	76747	6.9	0	o	Q
3053	3	2.03E-05	3	4.98E-05	0.407309		ENSG00000109689:E	STIM2			gi|41349446|ref|NP_	stromal interaction molecule	833	93025	7.5	0	o	Q
3054	3	2.01E-05	1	4.04E-06	4.963003		ENSG00000172725:E	CORO1B			gi|65787364|ref|NP_	coronin, actin binding protein	489	54235	5.9	0	o	Q
3055	3	1.95E-05	1	1.7E-05	1.149537		ENSG00000112851:E	ERBB2IP			gi|55770895|ref|NP_	ERBB2 interacting protein iso	1302	146086	5.3	0	o	Q
3056	3	1.9E-05	5	0.000383	0.049507		ENSG00000164209:E	SLC25A46			gi|20270311|ref|NP_	solute carrier family 25, mem	418	46174	7.4	0	o	Q
3057	3	1.78E-05	6	0.000589	0.030261		ENSG00000029534:E	ANK1			gi|70780353|ref|NP_	ankyrin 1 isoform 4 [Homo sa	1856	203403	6.1	0	o	Q
3058	3	1.73E-05	1	6.09E-06	2.834961		ENSG00000160220:E	PWP2			gi|48762926|ref|NP_	PWP2 periodic tryptophan pr	919	102452	6.1	0	o	Q
3059	3	1.67E-05	2	4.21E-06	3.975199		ENSG00000203485:E	INF2			gi|149999378|ref|NP	inverted formin 2 isoform 2 [H	1240	134617	5.5	0	o	Q
3060	3	1.66E-05	1	1.6E-05	1.039307		ENSG00000112478:E	VPS52			gi|73747799|ref|NP_	vacuolar protein sorting 52 [H	723	82221	6	0	o	Q
3061	3	1.64E-05	3	4.72E-05	0.346827		ENSG00000162434:E	JAK1			gi|102469034|ref|NP	janus kinase 1 [Homo sapien	1154	133277	7.5	0	o	Q
3062	3	1.62E-05	2	8.55E-06	1.888717		ENSG00000160695:E	VPS11			gi|17978477|ref|NP_	vacuolar protein sorting 11 [H	941	107809	7.1	0	o	Q
3063	3	1.54E-05	6	0.000124	0.124125		ENSG00000013364:E	MVP			gi|19913412|ref|NP_	major vault protein [Homo sa	893	99327	5.5	0	o	Q
3064	3	1.51E-05	1	1.35E-05	1.115394		ENSG00000099381:E	SETD1A			gi|55741677|ref|NP_	SET domain containing 1A [H	1707	186033	5.1	0	o	Q
3065	3	1.43E-05	2	1.19E-05	1.203335		ENSG00000100592:E	DAAM1			gi|21071077|ref|NP_	dishevelled-associated activa	1078	123473	7.2	0	o	Q
3066	3	1.41E-05	1	4.46E-06	3.15985		ENSG00000179115:E	FARSA			gi|4758340|ref|NP_0	phenylalanyl-tRNA synthetas	508	57564	7.8	0	o	Q
3067	3	1.07E-05	1	4.31E-06	2.473426		ENSG00000004487:E	AOF2			gi|58761546|ref|NP_	amine oxidase (flavin contain	852	92903	6.5	0	o	S
3068	3	5.61E-06	2	1.97E-06	2.853066		ENSG00000115760:E	BIRC6			gi|153792694|ref|NP	baculoviral IAP repeat-contai	4857	530274	6	0	o	S
3069	3	2.18E-06	1	7.88E-07	2.770681		ENSG00000005810:E	MYCBP2			gi|126116565|ref|NP	MYC binding protein 2 [Homo	4640	510091	7	0	o	S
3070	2	0.000167	4	0.000154	1.085617		ENSG00000187838:E	PLSCR3			gi|31543417|ref|NP_	phospholipid scramblase 3 [H	295	31648	6.7	0	o	Q
3071	2	0.000139	5	0.000646	0.214528		ENSG00000103769:E	RAB11A			gi|4758984|ref|NP_0	Ras-related protein Rab-11A	216	24394	6.5	0	o	Q
3072	2	0.000137	6	0.002975	0.045929		ENSG00000181035:E	SLC25A42			gi|60460887|ref|NP_	solute carrier family 25, mem	318	35437	10.1	0	o	Q
3073	2	0.000109	1	5.45E-05	1.994303		ENSG00000110717:E	NDUFS8			gi|4505371|ref|NP_0	NADH dehydrogenase (ubiqu	210	23705	6.3	0	o	S
3074	2	9.48E-05	2	1.98E-05	4.779363		ENSG00000147654:E	EBAG9			gi|37694065|ref|NP_	estrogen receptor binding site	213	24377	6.3	0	o	S
3075	2	8.5E-05	4	0.00061	0.139509		ENSG00000129472:E	RAB2B			gi|21361884|ref|NP_	RAB2B protein [Homo sapien	216	24214	7.8	0	o	Q
3076	2	8.08E-05	5	0.000481	0.168205		ENSG00000156052:E	GNAQ			gi|40254462|ref|NP_	guanine nucleotide binding p	359	42142	5.7	0	o	Q
3077	2	7.7E-05	3	3.87E-05	1.990979		ENSG00000163050:E	CABC1			gi|34147522|ref|NP_	chaperone, ABC1 activity of	647	71950	7	0	o	Q
3078	2	7.65E-05	3	0.000121	0.630248		ENSG00000131469:E	RPL27			gi|4506623|ref|NP_0	ribosomal protein L27 [Homo	136	15798	10.6	0	o	Q
3079	2	7.11E-05	5	0.000375	0.189471		ENSG00000198843:E	SELT			gi|42789380|ref|NP_	selenoprotein T [Homo sapie	195	22174	8.6	0	o	S
3080	2	6.38E-05	3	9.89E-05	0.644923		ENSG00000086061:E	DNAJA1			gi|4504511|ref|NP_0	DnaJ (Hsp40) homolog, subf	397	44868	7.1	0	o	Q
3081	2	5.98E-05	6	0.00078	0.076653		ENSG00000071082:N	RPL31			gi|148746199|ref|NP	ribosomal protein L31 isoform	128	14632	10.8	0	o	Q
3082	2	5.55E-05	5	0.000303	0.183514		ENSG00000006451:E	RALA			gi|33946329|ref|NP_	ras related v-ral simian leuke	206	23567	7.1	0	o	Q
3083	2	4.88E-05	4	0.000258	0.189033		ENSG00000197582:E	GPX1			gi|41406084|ref|NP_	glutathione peroxidase 1 isof	203	21938	6.5	0	o	S
3084	2	4.82E-05	1	1.84E-05	2.624848		ENSG00000109180:E	OCIAD1			gi|119874205|ref|NP	OCIA domain containing 1 is	245	27626	7.5	0	o	Q
3085	2	4.77E-05	1	1.54E-05	3.108054		ENSG00000164244:E	PRRC1			gi|18677735|ref|NP_	proline-rich coiled-coil 1 [Hon	445	46701	5.8	0	o	Q
3086	2	4.62E-05	4	0.000146	0.317414		ENSG00000095139:E	ARCN1			gi|11863154|ref|NP_	archain [Homo sapiens]	511	57210	6.2	0	o	S
3087	2	4.62E-05	4	0.000128	0.361978		ENSG00000072958:E	AP1M1			gi|14210504|ref|NP_	adaptor-related protein comp	423	48587	7.3	0	o	Q
3088	2	4.23E-05	4	0.000546	0.077504		ENSG00000133818:E	RRAS2			gi|21361416|ref|NP_	related RAS viral (r-ras) onco	204	23400	6	0	o	Q
3089	2	4.08E-05	4	7.96E-05	0.512472		ENSG00000115806:E	GORASP2			gi|29826294|ref|NP_	golgi reassembly stacking pr	452	47145	4.8	0	o	Q
3090	2	3.83E-05	2	3.86E-05	0.992498		ENSG00000149257:E	SERPINH1			gi|32454741|ref|NP_	serine (or cysteine) proteinas	418	46441	8.7	0	o	S
3091	2	3.81E-05	5	0.000359	0.106106		ENSG00000142655:E	PEX14			gi|4758896|ref|NP_0	peroxisomal biogenesis facto	377	41237	4.9	0	o	Q
3092	2	3.6E-05	5	0.000165	0.218351		ENSG00000087460:E	GNAS			gi|117938762|ref|NP	GNAS complex locus isoform	395	45752	5.8	0	o	Q
3093	2	3.16E-05	3	3.94E-05	0.802169		ENSG00000168385:E	SEPT2			gi|56549640|ref|NP_	septin 2 [Homo sapiens]	361	41487	6.6	0	o	Q
3094	2	2.93E-05	1	7.23E-06	4.045665		ENSG00000101997:E	CCDC22			gi|7661844|ref|NP_0	coiled-coil domain containing	627	70756	6.8	0	o	Q
3095	2	2.91E-05	2	4.21E-05	0.691125		ENSG00000198898:E	CAPZA2			gi|5453599|ref|NP_0	capping protein (actin filamen	286	32949	5.8	0	o	Q
3096	2	2.75E-05	6	0.000329	0.083495		ENSG00000161267:E	BDH1			gi|44680136|ref|NP_	3-hydroxybutyrate dehydroge	343	38157	9	0	o	Q
3097	2	2.74E-05	1	6.6E-06	4.148873		ENSG00000132300:E	PTCD3			gi|38683855|ref|NP_	Pentatricopeptide repeat dom	689	78550	6.4	0	o	Q
3098	2	2.71E-05	2	1.62E-05	1.675206		ENSG00000114302:E	PRKAR2A			gi|4758958|ref|NP_0	cAMP-dependent protein kin	404	45518	5.1	0	o	Q
3099	2	2.69E-05	1	1.56E-05	1.725565		ENSG00000185515:E	BRCC3			gi|13236583|ref|NP_	BRCA1/BRCA2-containing c	316	36072	5.9	0	o	Q
3100	2	2.45E-05	3	0.000144	0.170441		ENSG00000196975:E	ANXA4			gi|4502105|ref|NP_0	annexin IV [Homo sapiens]	321	36085	6.1	0	o	Q
3101	2	2.4E-05	1	7.23E-06	3.316582		ENSG00000033050:E	ABCF2			gi|10947137|ref|NP_	ATP-binding cassette, sub-fa	634	72444	7.5	0	o	Q
3102	2	2.15E-05	1	1.29E-05	1.662076		ENSG00000141858:E	SAMD1			gi|39930517|ref|NP_	sterile alpha motif domain co	538	56052	7.6	0	o	S
3103	2	2.03E-05	1	4.43E-06	4.569317		ENSG00000130749:E	ZC3H4			gi|126723060|ref|NP	zinc finger CCCH-type conta	1303	140256	6.3	0	o	Q
3104	2	1.89E-05	1	7.27E-06	2.606598		ENSG00000013563:E	DNASE1L1			gi|58430946|ref|NP_	deoxyribonuclease I-like 1 pr	302	33893	5.7	0	o	S
3105	2	1.87E-05	2	1.86E-05	1.004619		ENSG00000127359:E	KIAA1147			gi|122937185|ref|NP	hypothetical protein LOC571	455	51446	5.3	0	o	Q
3106	2	1.87E-05	1	5.46E-06	3.423364		ENSG00000119318:E	RAD23B			gi|4506387|ref|NP_0	UV excision repair protein RA	409	43171	4.8	0	o	Q
3107	2	1.82E-05	2	5.12E-06	3.554107		ENSG00000138802:E	SEC24B			gi|112382212|ref|NP	SEC24 (S. cerevisiae) homol	1268	137417	6.7	0	o	S
3108	2	1.74E-05	3	2.39E-05	0.728268		ENSG00000157184:E	CPT2			gi|4503023|ref|NP_0	carnitine palmitoyltransferase	658	73777	8.2	0	o	Q
3109	2	1.51E-05	2	5.18E-06	2.907436		ENSG00000120008:E	BRWD2			gi|13324688|ref|NP_	bromodomain and WD repea	1224	136685	6.9	0	o	Q
3110	2	1.39E-05	1	9.92E-06	1.402216		ENSG00000167378:E	IRGQ			gi|56090582|ref|NP_	immunity-related GTPase far	623	62717	4.9	0	o	Q
3111	2	1.28E-05	2	4.23E-06	3.034435		ENSG00000107651:E	SEC23IP			gi|6005824|ref|NP_0	Sec23-interacting protein p12	1000	111076	5.5	0	o	Q
3112	2	1.22E-05	1	2.77E-05	0.441896		ENSG00000137486:E	ARRB1			gi|10880134|ref|NP_	arrestin beta 1 isoform B [Ho	410	46309	6.3	0	o	Q
3113	2	1.16E-05	4	2.25E-05	0.517003		ENSG00000133392:E	MYH11			gi|13124875|ref|NP_	smooth muscle myosin heav	1938	223575	5.5	0	o	Q
3114	2	1.16E-05	4	3.83E-05	0.302959		ENSG00000166747:E	AP1G1			gi|71772942|ref|NP_	adaptor-related protein comp	822	91351	6.8	0	o	Q
3115	2	1.03E-05	6	3.88E-05	0.265121		ENSG00000115414:E	FN1			gi|16933542|ref|NP_	fibronectin 1 isoform 3 prepro	2355	259223	5.7	0	o	S
3116	2	9.66E-06	3	3.82E-05	0.252662		ENSG00000116266:E	STXBP3			gi|118600975|ref|NP	syntaxin binding protein 3 [Ho	592	67764	7.8	0	o	Q
3117	2	9.55E-06	1	7.98E-06	1.196856		ENSG00000138750:E	NUP54			gi|26051237|ref|NP_	nucleoporin 54kDa [Homo sa	507	55436	7	0	o	S
3118	2	8.54E-06	3	7.98E-06	1.069886		ENSG00000167716:E	WDR81			gi|116256466|ref|NP	WD repeat domain 81 [Homo	890	95676	5.1	0	o	Q
3119	2	8.4E-06	1	4.2E-06	2.00064		ENSG00000146909:E	NOM1			gi|61097912|ref|NP_	nucleolar protein with MIF4G	860	96257	8.1	0	o	Q
3120	2	7.63E-06	1	3.11E-06	2.451471		ENSG00000197226:E	TBC1D9B			gi|45597175|ref|NP_	TBC1 domain family, membe	1250	140525	5.3	0	o	Q
3121	2	7.44E-06	1	5.53E-06	1.343517		ENSG00000146834:E	MEPCE			gi|47271406|ref|NP_	bin3, bicoid-interacting 3 [Ho	689	74355	9.6	0	o	Q
3122	2	7.23E-06	1	2.53E-06	2.854119		ENSG00000124198:E	ARFGEF2			gi|150417986|ref|NP	ADP-ribosylation factor guan	1785	202037	6.3	0	o	Q
3123	2	7.11E-06	2	8.53E-06	0.832739		ENSG00000155629:E	PIK3AP1			gi|45505139|ref|NP_	phosphoinositide-3-kinase ad	805	90398	5.4	0	o	Q
3124	2	6.9E-06	1	1.61E-05	0.427371		ENSG00000114480:E	GBE1			gi|119393897|ref|NP	glucan (1,4-alpha-), branchin	702	80474	6.3	0	o	Q
3125	2	6.71E-06	1	2.02E-06	3.32727		ENSG00000155506:E	LARP1			gi|39725634|ref|NP_	la related protein isoform 1 [H	1019	116465	9.1	0	o	Q
3126	2	6.27E-06	1	1.55E-06	4.031523		ENSG00000141027:E	NCOR1			gi|22538461|ref|NP_	nuclear receptor co-represso	2440	270207	7.1	0	o	Q
3127	2	6.01E-06	1	4.37E-06	1.37502		ENSG00000156983:E	BRPF1			gi|51173720|ref|NP_	bromodomain and PHD finge	1220	138185	7.7	0	o	Q
3128	2	5.74E-06	2	8.31E-06	0.690806		ENSG00000119321:E	FKBP15			gi|150010552|ref|NP	FK506 binding protein 15, 13	1219	133630	5.2	0	o	Q
3129	2	5.66E-06	1	5.94E-06	0.953931		ENSG00000146872:E	TLK2			gi|45643117|ref|NP_	tousled-like kinase 2 isoform	750	85444	8.4	0	o	Q
3130	2	5.53E-06	3	1.33E-05	0.416881		ENSG00000115677:E	HDLBP			gi|42716280|ref|NP_	high density lipoprotein bindi	1268	141439	6.9	0	o	Q
3131	2	5.28E-06	1	4.13E-06	1.27956		ENSG00000198231:E	DDX42			gi|45446747|ref|NP_	DEAD box polypeptide 42 pr	938	102975	7	0	o	Q
3132	2	3.41E-06	4	3.25E-05	0.105052		ENSG00000148396:E	SEC16A			gi|124378039|ref|NP	SEC16 homolog A [Homo sa	2357	251891	5.8	0	o	Q
3133	2	3.31E-06	2	1.09E-05	0.302289		ENSG00000142197:E	DOPEY2			gi|45827701|ref|NP_	pad-1-like [Homo sapiens]	2298	258227	6.3	0	o	Q
3134	2	2.92E-06	3	1.96E-05	0.149305		ENSG00000061987:E	MON2			gi|114326552|ref|NP	MON2 homolog [Homo sapie	1717	190357	6.1	0	o	Q
3135	2	2.55E-06	1	4.36E-06	0.584539		ENSG00000160299:E	PCNT			gi|81295809|ref|NP_	pericentrin [Homo sapiens]	3336	378039	5.6	0	o	Q
3136	2	2.11E-06	1	5.06E-06	0.417739		ENSG00000143669:E	LYST			gi|54292123|ref|NP_	lysosomal trafficking regulato	3801	429141	6.6	0	o	Q
3137	1	0.000817	2	0.000178	4.60063		ENSG00000145287:E	PLAC8			gi|7706158|ref|NP_0	placenta-specific 8 [Homo sa	115	12507	7.6	0	i	Q
3138	1	0.000164	2	0.000138	1.188105		NA:ENSMUSG00000	RPS16			gi|4506691|ref|NP_0	ribosomal protein S16 [Homo	146	16445	10.2	0	o	Q
3139	1	0.000128	2	0.000113	1.13066		ENSG00000204444:E	APOM			gi|22091452|ref|NP_	apolipoprotein M [Homo sapi	188	21253	6	0	o	S
3140	1	0.000121	1	2.7E-05	4.499252		ENSG00000168035:N	LOC100131572			gi|169161552|ref|XP	PREDICTED: similar to hCG	84	9461	9.5	0	o	Q
3141	1	5.98E-05	1	0.001197	0.04995		ENSG00000187446:E	CHP			gi|6005731|ref|NP_0	calcium binding protein P22 [	195	22456	5.1	0	o	Q
3142	1	5.61E-05	4	0.00039	0.14368		ENSG00000175582:E	RAB6A			gi|19923231|ref|NP_	RAB6A, member RAS oncog	208	23549	5.5	0	o	Q
3143	1	5.32E-05	2	3.02E-05	1.765874		ENSG00000110880:E	CORO1C			gi|7656991|ref|NP_0	coronin, actin binding protein	474	53249	7.1	0	o	Q
3144	1	4.18E-05	2	6.53E-05	0.639712		ENSG00000176055:E	MBLAC2			gi|42822880|ref|NP_	similar to metallo-beta-lactam	279	31341	6.9	0	o	Q
3145	1	3.79E-05	6	9.06E-05	0.418711		ENSG00000070182:E	SPTB			gi|67782319|ref|NP_	spectrin beta isoform b [Hom	2137	246466	5.3	0	o	Q
3146	1	3.05E-05	3	3.64E-05	0.83778		ENSG00000109854:E	HTATIP2			gi|148728166|ref|NP	HIV-1 Tat interactive protein	276	30131	8.4	0	o	S
3147	1	2.76E-05	1	1.3E-05	2.132771		ENSG00000137502:E	RAB30			gi|21361418|ref|NP_	RAB30, member RAS oncog	203	23058	5	0	o	Q
3148	1	2.72E-05	2	5.15E-05	0.527358		ENSG00000155744:E	FAM126B			gi|28376658|ref|NP_	hypothetical protein LOC285	530	58647	7.9	0	o	Q
3149	1	2.58E-05	5	0.000199	0.129861		ENSG00000131100:E	ATP6V1E1			gi|4502317|ref|NP_0	vacuolar H+ ATPase E1 isofo	226	26145	8	0	o	Q
3150	1	2.47E-05	7	0.001106	0.022331		ENSG00000105854:E	PON2			gi|66529294|ref|NP_	paraoxonase 2 isoform 1 [Ho	354	39381	5.6	0	o	S
3151	1	2.41E-05	1	6.91E-06	3.488225		ENSG00000135919:E	SERPINE2			gi|24307907|ref|NP_	plasminogen activator inhibito	398	44002	9.3	0	o	S
3152	1	2.23E-05	1	0.000124	0.179693		ENSG00000167536:E	DHRS13			gi|146231950|ref|NP	dehydrogenase/reductase (S	377	40849	7.7	0	o	S
3153	1	2.19E-05	2	2.89E-05	0.756369		ENSG00000074416:E	MGLL			gi|51242953|ref|NP_	monoglyceride lipase isoform	303	33261	7	0	o	Q
3154	1	2.03E-05	3	3.53E-05	0.576666		ENSG00000181744:E	C3orf58			gi|27734895|ref|NP_	hypothetical protein LOC205	430	49482	8.5	0	o	S
3155	1	1.76E-05	1	1.37E-05	1.282147		ENSG00000181929:E	PRKAG1			gi|4506061|ref|NP_0	AMP-activated protein kinase	331	37579	6.9	0	o	Q
3156	1	1.31E-05	4	0.0001	0.131079		ENSG00000160285:E	LSS			gi|47933397|ref|NP_	lanosterol synthase [Homo sa	732	83309	6.6	0	o	Q
3157	1	1.27E-05	1	4.66E-06	2.721893		ENSG00000149187:E	CUGBP1			gi|38570081|ref|NP_	CUG triplet repeat, RNA-bind	483	51617	8.5	0	o	Q
3158	1	1.21E-05	3	2.08E-05	0.582624		ENSG00000173933:E	RBM4			gi|93277122|ref|NP_	RNA binding motif protein 4 [	364	40314	7.1	0	o	Q
3159	1	1.17E-05	1	5.1E-06	2.299566		ENSG00000090372:E	STRN4			gi|89886477|ref|NP_	zinedin isoform 1 [Homo sap	753	80596	5.4	0	o	S
3160	1	1.16E-05	1	4.66E-06	2.4901		ENSG00000135457:E	TFCP2			gi|21361278|ref|NP_	transcription factor CP2 [Hom	502	57256	5.8	0	o	Q
3161	1	1.02E-05	6	0.000106	0.096222		ENSG00000143627:E	PKLR			gi|10835121|ref|NP_	pyruvate kinase, liver and RB	574	61830	7.8	0	o	Q
3162	1	9.88E-06	4	0.00015	0.065871		ENSG00000182484:E	LOC376475			gi|169216741|ref|XP	PREDICTED: hypothetical pr	447	47990	5.7	0	o	Q
3163	1	9.57E-06	6	0.00366	0.002616		ENSG00000163631:E	ALB			gi|4502027|ref|NP_0	albumin precursor [Homo sap	609	69367	6.3	0	o	S
3164	1	9.53E-06	1	5.76E-06	1.654348		ENSG00000169299:E	PGM2			gi|63055049|ref|NP_	phosphoglucomutase 2 [Hom	612	68283	6.7	0	o	Q
3165	1	6.88E-06	1	2.76E-06	2.491046		ENSG00000132334:E	PTPRE			gi|18860859|ref|NP_	protein tyrosine phosphatase	642	74595	7.5	0	o	Q
3166	1	5.99E-06	1	6.17E-06	0.971322		ENSG00000087274:E	ADD1			gi|29826319|ref|NP_	adducin 1 (alpha) isoform a [	737	80955	5.8	0	o	Q
3167	1	5.97E-06	3	6.89E-05	0.08673		ENSG00000176658:E	MYO1D			gi|51100974|ref|NP_	myosin ID [Homo sapiens]	1006	116202	9.4	0	o	Q
3168	1	5.8E-06	3	2.28E-05	0.254178		ENSG00000133026:E	MYH10			gi|41406064|ref|NP_	myosin, heavy polypeptide 1	1976	228997	5.5	0	o	Q
3169	1	5.21E-06	6	0.00034	0.015329		ENSG00000100504:E	PYGL			gi|71037379|ref|NP_	glycogen phosphorylase, live	847	97149	7.2	0	o	Q
3170	1	4.64E-06	4	4.85E-05	0.095607		ENSG00000163554:E	SPTA1			gi|115298659|ref|NP	spectrin, alpha, erythrocytic 1	2419	280013	5	0	o	Q
3171	1	3.14E-06	6	0.000526	0.005955		ENSG00000183020:E	AP2A2			gi|27477041|ref|NP_	adaptor-related protein comp	939	103960	7	0	o	Q
3172	1	2.8E-06	1	1.25E-06	2.237958		ENSG00000183495:E	EP400			gi|56549696|ref|NP_	E1A binding protein p400 [Ho	3122	339693	9.2	0	o	Q
3173	1	2.77E-06	1	4.83E-06	0.57277		ENSG00000103194:E	USP10			gi|119220605|ref|NP	ubiquitin specific protease 10	798	87134	5.3	0	o	Q
3174	1	1.94E-06	2	2.93E-06	0.660465		ENSG00000197969:E	VPS13A			gi|15619008|ref|NP_	vacuolar protein sorting 13A	3095	350903	6	0	o	Q
3175	10	0.003719	4	0.001109	3.35322	Y	ENSG00000212874:E	MT-CO2			gi|17981856|ref|NP_	cytochrome c oxidase subun	227	25565	4.8	2	i26-48o63-	A
3176	8	0.002791	6	0.000561	4.979252	Y	ENSG00000075415:E	SLC25A3			gi|47132595|ref|NP_	solute carrier family 25 memb	361	39959	9.4	2	o261-283i3	Q
3177	8	0.002315	4	0.000473	4.898439	Y	ENSG00000164466:E	SFXN1			gi|23618867|ref|NP_	sideroflexin 1 [Homo sapiens	322	35619	9.1	3	o174-196i2	Q
3178	7	0.000759	6	0.000207	3.658171	Y	ENSG00000154174:E	TOMM70A			gi|54607135|ref|NP_	translocase of outer mitochon	608	67455	7.1	2	i7-29o39-6	S
3179	7	0.00026	8	0.008389	0.031	Y	ENSG00000151726:E	ACSL1			gi|40807491|ref|NP_	acyl-CoA synthetase long-ch	698	77943	7.1	1	i21-43o	A
3180	6	0.00215	5	0.000502	4.280603	Y	ENSG00000131143:E	COX4I1			gi|4502981|ref|NP_0	cytochrome c oxidase subun	169	19577	9.5	1	i103-120o	Q
3181	6	0.000185	0	0	INF	Y	ENSG00000115159:E	GPD2			gi|133908616|ref|NP	glycerol-3-phosphate dehydro	727	80834	7.5	1	i7-29o	S
3182	5	0.001119	0	0	INF	Y	ENSG00000087088:E	BAX			gi|20631958|ref|NP_	BCL2-associated X protein is	192	21184	5.2	1	o169-188i	Q

rk			RESTING LYMPHOCYTES NEs								PHA-TREATED LYMPHOCYTES NEs							
	SIGNALP_HMM_POS	SIGNALP_HMM_SPROB	HsNaOH-NE_NT_lymphocytes_CNBrTi_1_dNSAF	HsNaOH-NE_NT_lymphocytes_Ti_1_dNSAF	HsNaOH-NE_NT_lymphocytes_PK_1_dNSAF	HsSD-NE_NT_lymphocytes_Ti_1_dNSAF	HsSD-NE_NT_lymphocytes_PK_1_dNSAF	NT-bNEs Detected # Out of 5	NT-bNEs dNSAF AVG	NT-bNEs dNSAF SDV	HsNaOH-NE_PHA_lymphocytes_CNBrTi_1_dNSAF	HsNaOH-NE_PHA_lymphocytes_Ti_1_dNSAF	HsNaOH-NE_PHA_lymphocytes_PK_1_dNSAF	HsSD-NE_PHA_lymphocytes_Ti_1_dNSAF	HsSD-NE_PHA_lymphocytes_PK_1_dNSAF	PHA-bNEs Detected # Out of 5	PHA-bNEs dNSAF AVG	PHA-bNEs dNSAF SDV
3037	18	0	0	0	0	5.99E-05	0	1	1.5E-05	2.99E-05	0	0	0	0.000166	0.00013	2	7.4E-05	8.67E-05
3038	46	0.159	0	0.0002	0	7.58E-05	0	2	6.9E-05	9.45E-05	0	4.81E-05	0	0	0	1	1.2E-05	2.41E-05
3039	20	1	0	5.9E-05	0	2.23E-05	0	2	2.03E-05	2.78E-05	0	0.000227	0	0	0	1	5.67E-05	0.000113
3040	0	0	0	0.00011	0	8.29E-05	0	2	4.81E-05	5.66E-05	0	0.000105	0	0	0	1	2.63E-05	5.27E-05
3041	18	0	0	0.000154	0	5.83E-05	0	2	5.31E-05	7.27E-05	0	0	0	8.08E-05	0	1	2.02E-05	4.04E-05
3042	26	0.001	0	4.77E-05	0	4.82E-05	0	2	2.4E-05	2.77E-05	0	0	0	0	0.000196	1	4.91E-05	9.82E-05
3043	18	0	0	0	0	6.93E-05	0	1	1.73E-05	3.46E-05	0	8.8E-05	0	0.000128	0	2	5.4E-05	6.45E-05
3044	0	0	0	7.69E-05	0	0	0	1	1.92E-05	3.84E-05	0	7.39E-05	0	0	0.000126	2	5.01E-05	6.17E-05
3045	38	0.019	0	3.07E-05	0	8.15E-05	0	2	2.8E-05	3.84E-05	0	0	0	0	0.000152	1	3.79E-05	7.59E-05
3046	17	0	0.000129	6.2E-05	0	0	0	2	4.79E-05	6.17E-05	0	0	0	0	6.89E-05	1	1.72E-05	3.45E-05
3047	33	0.002	0	0.000126	0	0	0	1	3.15E-05	6.3E-05	0	3.03E-05	0	0	0.000104	2	3.35E-05	4.89E-05
3048	29	0.671	0	9.18E-05	0	3.48E-05	0	2	3.16E-05	4.33E-05	0	0.000132	0	0	0	1	3.31E-05	6.62E-05
3049	0	0	0	8.22E-05	0	4.15E-05	0	2	3.09E-05	3.94E-05	0	0.000132	0	0	0	1	3.3E-05	6.59E-05
3050	20	0.003	0	4.39E-05	0.000177	1.66E-05	0	3	5.93E-05	8.04E-05	0	0	0	0	0	0	0	0
3051	0	0	0	6.81E-05	0	2.58E-05	0	2	2.35E-05	3.22E-05	0	9.83E-05	0	0	0	1	2.46E-05	4.92E-05
3052	16	0	0	0	0	5.19E-05	0.000598	2	1.3E-05	2.59E-05	0	0.000132	0	0	0	1	3.29E-05	6.59E-05
3053	52	0.001	0	3.5E-05	0	0	0	1	8.75E-06	1.75E-05	0	0.000108	0	1.96E-05	0	2	3.18E-05	5.14E-05
3054	18	0	0	0	0	3.61E-05	0	1	9.03E-06	1.81E-05	0	4.59E-05	0	0	7.85E-05	2	3.11E-05	3.83E-05
3055	20	0.366	0	5.37E-05	0	6.78E-05	0	2	3.04E-05	3.56E-05	0	3.45E-05	0	0	0	1	8.62E-06	1.72E-05
3056	37	0	0	5.58E-05	0	4.23E-05	0	2	2.45E-05	2.88E-05	0	5.37E-05	0	0	0	1	1.34E-05	2.68E-05
3057	23	0.005	8.74E-05	0	0	1.9E-05	0	2	2.66E-05	4.15E-05	0	3.63E-05	0	0	0	1	9.07E-06	1.81E-05
3058	21	0.002	0	5.08E-05	0	3.84E-05	0	2	2.23E-05	2.62E-05	0	4.88E-05	0	0	0	1	1.22E-05	2.44E-05
3059	0	0	0	1.88E-05	0	4.27E-05	0	2	1.54E-05	2.03E-05	0	7.24E-05	0	0	0	1	1.81E-05	3.62E-05
3060	19	0.326	0	0	0	4.89E-05	0	1	1.22E-05	2.44E-05	0	3.1E-05	0	0	5.31E-05	2	2.1E-05	2.59E-05
3061	23	0	0	8.08E-05	0	3.06E-05	0	2	2.79E-05	3.82E-05	0	1.94E-05	0	0	0	1	4.86E-06	9.72E-06
3062	58	0.001	0	7.44E-05	0	3.75E-05	0	2	2.8E-05	3.56E-05	0	0	0	1.73E-05	0	1	4.34E-06	8.67E-06
3063	0	0	0	2.61E-05	0	7.91E-05	0	2	2.63E-05	3.73E-05	0	0	0	1.83E-05	0	1	4.57E-06	9.14E-06
3064	0	0	0	1.37E-05	0	2.07E-05	0	2	8.59E-06	1.03E-05	0	0	0	8.6E-05	0	1	2.15E-05	4.3E-05
3065	25	0.008	0	0	0	1.64E-05	0	1	4.1E-06	8.19E-06	0	6.24E-05	0	0	3.56E-05	2	2.45E-05	3.03E-05
3066	17	0.01	0	4.59E-05	0	3.48E-05	0	2	2.02E-05	2.37E-05	0	0	0	3.21E-05	0	1	8.03E-06	1.61E-05
3067	24	1	0	0	0	2.07E-05	0	1	5.18E-06	1.04E-05	0	2.63E-05	0	3.83E-05	0	2	1.62E-05	1.93E-05
3068	45	0.599	0	9.6E-06	0	3.64E-06	0	2	3.31E-06	4.53E-06	0	0	0	0	3.16E-05	1	7.9E-06	1.58E-05
3069	23	0.806	0	5.03E-06	0	7.61E-06	0	2	3.16E-06	3.8E-06	0	4.84E-06	0	0	0	1	1.21E-06	2.42E-06
3070	64	0	0.001099	0.000237	0	0	0	2	0.000334	0.000522	0	0	0	0	0	0	0	0
3071	24	0	0	0.000239	0.00087	0	0	2	0.000277	0.000411	0	0	0	0	0	0	0	0
3072	48	0.011	0.00102	7.33E-05	0	0	0	2	0.000273	0.000499	0	0	0	0	0	0	0	0
3073	20	0.994	0	0	0	0.000505	0	1	0.000126	0.000252	0	0	0	0	0.000366	1	9.14E-05	0.000183
3074	28	0.677	0	0.000548	0	0	0	1	0.000137	0.000274	0	0.000211	0	0	0	1	5.27E-05	0.000105
3075	19	0.001	0	0.000605	0	0	0	1	0.000151	0.000302	0	0	0	7.56E-05	0	1	1.89E-05	3.78E-05
3076	19	0.005	0.000452	0.000195	0	0	0	2	0.000162	0.000214	0	0	0	0	0	0	0	0
3077	22	0.055	0	0	0	8.19E-05	0	1	2.05E-05	4.1E-05	0	0	0	0	0.000534	1	0.000133	0.000267
3078	24	0.029	0	0	0	0	0	0	0	0	0	0.00033	0	0	0.000282	2	0.000153	0.000178
3079	20	1	0	0.000478	0	9.06E-05	0	2	0.000142	0.000228	0	0	0	0	0	0	0	0
3080	0	0	0	0	0	0.000222	0	1	5.56E-05	0.000111	0	0	0	0.000288	0	1	7.19E-05	0.000144
3081	0	0	0	0	0	0	0	0	0	0	0	0.000351	0	0.000128	0	2	0.00012	0.000165
3082	30	0.012	0	0.000226	0	0	0	1	5.66E-05	0.000113	0	0.000218	0	0	0	1	5.45E-05	0.000109
3083	19	0.998	0	0.00023	0	0	0	1	5.74E-05	0.000115	0	0	0	0.000161	0	1	4.02E-05	8.04E-05
3084	0	0	0	0	0	7.21E-05	0	1	1.8E-05	3.6E-05	0	0	0	0	0.000313	1	7.83E-05	0.000157
3085	37	0.008	0	0	0	0	0	0	0	0	0	0	0	3.67E-05	0.000345	2	9.54E-05	0.000167
3086	16	0.622	0	0	0	6.91E-05	0	1	1.73E-05	3.46E-05	0	0	0	0	0.0003	1	7.51E-05	0.00015
3087	19	0	0	0	0	0.000292	0	1	7.31E-05	0.000146	0	0	0	7.72E-05	0	1	1.93E-05	3.86E-05
3088	30	0.01	0	0.000229	0	0	0	1	5.72E-05	0.000114	0	0.00011	0	0	0	1	2.75E-05	5.5E-05
3089	17	0	0	0	0	0.000156	0	1	3.91E-05	7.82E-05	0	0	0	0	0.00017	1	4.25E-05	8.49E-05
3090	19	1	0	0	0	0	0	0	0	0	0	0.000215	0	0	9.18E-05	2	7.66E-05	0.000102
3091	0	0	0	0.000186	0	0	0	1	4.64E-05	9.28E-05	0	0.000119	0	0	0	1	2.98E-05	5.95E-05
3092	0	0	0	0.000247	0	0	0	1	6.17E-05	0.000123	0	0	0	4.13E-05	0	1	1.03E-05	2.07E-05
3093	0	0	0	0	0	0.000147	0	1	3.67E-05	7.34E-05	0	0	0	0	0.000106	1	2.66E-05	5.32E-05
3094	19	0.001	0	0.000112	0	0	0	1	2.79E-05	5.58E-05	0	0	0	0	0.000122	1	3.06E-05	6.12E-05
3095	0	0	0	0	0	6.18E-05	0	1	1.54E-05	3.09E-05	0	0	0	0.000171	0	1	4.28E-05	8.56E-05
3096	50	0.197	0	0	0	0.000154	0	1	3.86E-05	7.72E-05	0	6.54E-05	0	0	0	1	1.64E-05	3.27E-05
3097	18	0.406	0	0	0	0	0	0	0	0	0	0.000195	0	2.37E-05	0	2	5.48E-05	9.44E-05
3098	17	0.002	0	0.000173	0	4.37E-05	0	2	5.42E-05	8.19E-05	0	0	0	0	0	0	0	0
3099	19	0.039	0	0	0	0.000112	0	1	2.79E-05	5.59E-05	0	0	0	0.000103	0	1	2.58E-05	5.16E-05
3100	16	0.001	0	0.000145	0	0	0	1	3.63E-05	7.27E-05	0	0	0	5.08E-05	0	1	1.27E-05	2.54E-05
3101	0	0	0	0	0	0	0	0	0	0	0	7.08E-05	0	0	0.000121	2	4.8E-05	5.91E-05
3102	27	0.982	0	0.00013	0	0	0	1	3.25E-05	6.5E-05	0	4.17E-05	0	0	0	1	1.04E-05	2.09E-05
3103	16	0	0	1.79E-05	0.000144	0	0	2	4.05E-05	6.96E-05	0	0	0	0	0	0	0	0
3104	19	1	0	7.72E-05	0	0	0	1	1.93E-05	3.86E-05	0	7.43E-05	0	0	0	1	1.86E-05	3.71E-05
3105	23	0.004	0	5.13E-05	0	0	0	1	1.28E-05	2.56E-05	0	9.86E-05	0	0	0	1	2.47E-05	4.93E-05
3106	0	0	0	0	0	0	0	0	0	0	0	0.00011	0	3.99E-05	0	2	3.74E-05	5.17E-05
3107	39	0.734	0.000128	0	0	0	0	1	3.2E-05	6.39E-05	0	1.77E-05	0	0	0	1	4.42E-06	8.85E-06
3108	28	0.092	0	7.09E-05	0	0	0	1	1.77E-05	3.54E-05	0	6.82E-05	0	0	0	1	1.7E-05	3.41E-05
3109	52	0.014	0	0	0	5.77E-05	0	1	1.44E-05	2.89E-05	0	0	0	0	6.27E-05	1	1.57E-05	3.14E-05
3110	20	0.136	0	0	0	8.51E-05	0	1	2.13E-05	4.25E-05	0	0	0	2.62E-05	0	1	6.55E-06	1.31E-05
3111	29	0.024	0	0	0	3.53E-05	0	1	8.83E-06	1.77E-05	0	6.73E-05	0	0	0	1	1.68E-05	3.37E-05
3112	0	0	0	0	0	4.31E-05	0	1	1.08E-05	2.15E-05	0	5.47E-05	0	0	0	1	1.37E-05	2.74E-05
3113	0	0	8.37E-05	0	0	9.29E-06	0	2	2.32E-05	4.05E-05	0	0	0	0	0	0	0	0
3114	22	0.001	0	2.84E-05	0	6.45E-05	0	2	2.32E-05	3.06E-05	0	0	0	0	0	0	0	0
3115	26	0.997	0	2.97E-05	0	5.25E-05	0	2	2.06E-05	2.55E-05	0	0	0	0	0	0	0	0
3116	21	0	0	3.94E-05	0	0	0	1	9.85E-06	1.97E-05	0	3.79E-05	0	0	0	1	9.47E-06	1.89E-05
3117	27	0.592	0	0	0	0	0	0	0	0	0	4.43E-05	0	3.22E-05	0	2	1.91E-05	2.26E-05
3118	20	0.003	0	0	0	0	0	0	0	0	0	2.52E-05	0	0	4.31E-05	2	1.71E-05	2.1E-05
3119	18	0.001	0	0	0	4.11E-05	0	1	1.03E-05	2.05E-05	0	2.61E-05	0	0	0	1	6.52E-06	1.3E-05
3120	23	0.08	0	1.87E-05	0	4.24E-05	0	2	1.53E-05	2.01E-05	0	0	0	0	0	0	0	0
3121	0	0	0	3.39E-05	0	2.56E-05	0	2	1.49E-05	1.75E-05	0	0	0	0	0	0	0	0
3122	21	0.001	0	3.27E-05	0	0	0	1	8.17E-06	1.63E-05	0	2.51E-05	0	0	0	1	6.28E-06	1.26E-05
3123	21	0.001	0	2.9E-05	0	0	0	1	7.24E-06	1.45E-05	0	2.79E-05	0	0	0	1	6.97E-06	1.39E-05
3124	32	0.002	0	0	0	0	0	0	0	0	0	3.2E-05	0	2.32E-05	0	2	1.38E-05	1.63E-05
3125	31	0	0	0	0	0	0	0	0	0	0	0	0	1.6E-05	3.77E-05	2	1.34E-05	1.78E-05
3126	0	0	0	0	0	4.34E-05	0	1	1.09E-05	2.17E-05	0	0	0	6.69E-06	0	1	1.67E-06	3.34E-06
3127	17	0	0	1.91E-05	0	2.9E-05	0	2	1.2E-05	1.44E-05	0	0	0	0	0	0	0	0
3128	33	0.001	0	1.91E-05	0	0	0	1	4.78E-06	9.57E-06	0	0	0	2.68E-05	0	1	6.69E-06	1.34E-05
3129	0	0	0	0	0	2.36E-05	0	1	5.89E-06	1.18E-05	0	0	0	2.18E-05	0	1	5.44E-06	1.09E-05
3130	19	0.005	0	0	0	1.39E-05	0	1	3.48E-06	6.97E-06	0	0	0	0	3.03E-05	1	7.57E-06	1.51E-05
3131	25	0.006	0	2.49E-05	0	0	0	1	6.22E-06	1.24E-05	0	0	0	1.74E-05	0	1	4.35E-06	8.7E-06
3132	22	0.001	0	1.98E-05	0	7.49E-06	0	2	6.82E-06	9.34E-06	0	0	0	0	0	0	0	0
3133	0	0	0	0	0	0	0	0	0	0	0	9.76E-06	0	0	1.67E-05	2	6.62E-06	8.15E-06
3134	0	0	0	0	0	1.03E-05	0	1	2.57E-06	5.14E-06	0	1.31E-05	0	0	0	1	3.27E-06	6.53E-06
3135	0	0	0	0	0	1.06E-05	0	1	2.65E-06	5.3E-06	0	0	0	9.78E-06	0	1	2.45E-06	4.89E-06
3136	30	0	0	1.23E-05	0	4.65E-06	0	2	4.23E-06	5.79E-06	0	0	0	0	0	0	0	0
3137	18	0.058	0	0	0.006535	0	0	1	0.001634	0.003267	0	0	0	0	0	0	0	0
3138	22	0.003	0	0	0	0	0	0	0	0	0	0	0	0	0.001315	1	0.000329	0.000657
3139	23	0.637	0	0	0	0	0	0	0	0	0	0	0	0	0.001021	1	0.000255	0.00051
3140	65	0	0	0	0	0	0	0	0	0	0	0	0	0.000971	0	1	0.000243	0.000486
3141	0	0	0	0.000478	0	0	0	1	0.00012	0.000239	0	0	0	0	0	0	0	0
3142	30	0	0	0.000449	0	0	0	1	0.000112	0.000224	0	0	0	0	0	0	0	0
3143	24	0	0	0	0	0	0	0	0	0	0	0.000426	0	0	0	1	0.000106	0.000213
3144	16	0	0	0.000334	0	0	0	1	8.36E-05	0.000167	0	0	0	0	0	0	0	0
3145	0	0	0.000304	0	0	0	0	1	7.59E-05	0.000152	0	0	0	0	0	0	0	0
3146	19	0.993	0	0	0	0	0	0	0	0	0	0.000244	0	0	0	1	6.1E-05	0.000122
3147	22	0.001	0	0	0	0	0	0	0	0	0	0.000221	0	0	0	1	5.53E-05	0.000111
3148	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000217	1	5.43E-05	0.000109
3149	0	0	0	0.000206	0	0	0	1	5.16E-05	0.000103	0	0	0	0	0	0	0	0
3150	24	0.997	0	0.000198	0	0	0	1	4.94E-05	9.88E-05	0	0	0	0	0	0	0	0
3151	21	0.995	0	0	0	0	0	0	0	0	0	0	0	0	0.000193	1	4.82E-05	9.65E-05
3152	26	0.762	0	0	0	0	0	0	0	0	0	0.000179	0	0	0	1	4.46E-05	8.93E-05
3153	26	0	0	0	0	0.000175	0	1	4.37E-05	8.74E-05	0	0	0	0	0	0	0	0
3154	38	0.993	0	0.000163	0	0	0	1	4.07E-05	8.14E-05	0	0	0	0	0	0	0	0
3155	0	0	0	0.000141	0	0	0	1	3.52E-05	7.05E-05	0	0	0	0	0	0	0	0
3156	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000105	1	2.62E-05	5.24E-05
3157	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000101	0	1	2.53E-05	5.07E-05
3158	17	0	0	0	0	9.71E-05	0	1	2.43E-05	4.85E-05	0	0	0	0	0	0	0	0
3159	24	0.962	0	0	0	9.38E-05	0	1	2.35E-05	4.69E-05	0	0	0	0	0	0	0	0
3160	17	0.002	0	9.29E-05	0	0	0	1	2.32E-05	4.65E-05	0	0	0	0	0	0	0	0
3161	37	0	0	8.13E-05	0	0	0	1	2.03E-05	4.06E-05	0	0	0	0	0	0	0	0
3162	22	0	0	0	0	7.9E-05	0	1	1.98E-05	3.95E-05	0	0	0	0	0	0	0	0
3163	19	1	0	7.66E-05	0	0	0	1	1.91E-05	3.83E-05	0	0	0	0	0	0	0	0
3164	16	0	0	7.62E-05	0	0	0	1	1.91E-05	3.81E-05	0	0	0	0	0	0	0	0
3165	20	0	0	0	0	5.5E-05	0	1	1.38E-05	2.75E-05	0	0	0	0	0	0	0	0
3166	20	0.002	0	0	0	4.79E-05	0	1	1.2E-05	2.4E-05	0	0	0	0	0	0	0	0
3167	0	0	0	4.78E-05	0	0	0	1	1.19E-05	2.39E-05	0	0	0	0	0	0	0	0
3168	29	0	0	0	0	0	0	0	0	0	0	0	0	0	4.64E-05	1	1.16E-05	2.32E-05
3169	0	0	0	0	0	4.17E-05	0	1	1.04E-05	2.09E-05	0	0	0	0	0	0	0	0
3170	0	0	0	0	0	0	0	0	0	0	0	3.71E-05	0	0	0	1	9.27E-06	1.85E-05
3171	26	0.001	0	0	0	2.51E-05	0	1	6.27E-06	1.25E-05	0	0	0	0	0	0	0	0
3172	20	0	0	2.24E-05	0	0	0	1	5.6E-06	1.12E-05	0	0	0	0	0	0	0	0
3173	16	0	0	0	0	2.21E-05	0	1	5.53E-06	1.11E-05	0	0	0	0	0	0	0	0
3174	17	0	0	0	0	0	0	0	0	0	0	0	0	0	1.55E-05	1	3.88E-06	7.75E-06
3175	48	0.001	0.003572	0.001747	0.011587	0.001012	0.005381	5	0.004479	0.004859	0.003911	0.00336	0.030802	0.000503	0.004059	5	0.002958	0.001664
3176	28	0.001	0.002695	0.002972	0.004684	0.001957	0	4	0.003077	0.001154	0.003689	0.004226	0	0.000723	0.001382	4	0.002505	0.001712
3177	0	0	0.002518	0.000685	0	0.000549	0.001264	4	0.000938	0.001094	0.011028	0.002021	0	5.07E-05	0.001669	4	0.003692	0.004965
3178	21	0.936	0.002667	0.001266	0.000618	0.00032	0	4	0.001218	0.001044	0	0.000812	0	0.000134	0.000253	3	0.0003	0.000357
3179	49	0.002	0.000929	6.68E-05	0	2.53E-05	0	3	0.000255	0.00045	0.000636	0.000321	0	4.68E-05	5.5E-05	4	0.000265	0.000278
3180	24	0.106	0	0.00069	0.003335	0.000209	0	3	0.001059	0.001545	0.010506	0.001328	0	0	0.001136	3	0.003242	0.004878
3181	24	0.858	0.000446	0.00016	0	0.000146	0	3	0.000188	0.000187	0.000611	9.26E-05	0	2.24E-05	0	3	0.000181	0.000289
3182	36	0	0	0.001093	0.005871	0	0	2	0.001741	0.002801	0	0.000701	0	0.000085	0.0012	3	0.000496	0.000563

rk	MMs										
	MmNaOH-MM_liver_CNBrTi_1_dNSAF	MmNaOH-MM_liver_CNBrTi_2_dNSAF	RnNaOH-MM_liver_Ti_1_dNSAF	RnNaOH-MM_liver_Ti_2_dNSAF	RnNaOH-MM_liver_Ti_3_dNSAF	RnNaOH-MM_liver_Ti_4_dNSAF	RnNaOH-MM_liver_PK_1_dNSAF	RnNaOH-MM_liver_PK_2_dNSAF	Region_Note	GO_Component	GO_Function
3037	0	0	0	0.000123	0	0	0	0		endoplasmic reticulum; Golgi	binding; intracellular
3038	0	0	0	0.000101	0	0	0	0	Nicotinate		nicotinate
3039	0	0	0.000232	0.000205	0	7.86E-05	0.000245	0.000501	6PGL: 6-	endoplasmic reticulum	6-phosphogluconolactonase
3040	0	0	0.000873	0.000257	0	7.38E-05	0.000307	0	Vesicle transport v-SNARE	integral to membrane;	receptor activity; transporter
3041	0	0	7.66E-05	3E-05	0	5.18E-05	0	0	Protein kinase C conserved		ATP binding; diacylglycerol
3042	0	0	0.000534	0.000154	0	5.05E-05	0.000171	0	Alpha adaptin AP2, C-	AP-2 adaptor complex [pmid	binding; structural molecule
3043	0	0	0	0.000142	0	6.14E-05	0	0	The electron transfer	mitochondrial matrix [pmid	electron carrier activity [pmid
3044	0	0	0	0	0	0.000103	0	0	HSR1/MMR1. Human	intracellular	GTP binding [pmid 8180467];
3045	0	0	6.09E-05	2.39E-05	0	0	0	0	Cullin, a subunit of E3		protein binding [pmid
3046	0	0	7.4E-05	2.9E-05	0	0	0	0	Cytoplasmic Fragile-X		
3047	0	0	0	4.9E-05	0	2.11E-05	0	0	fzo-like conserved region.	integral to membrane;	GTP binding; GTPase
3048	0	0.001477	0	0.000323	0	0.000124	0.000193	6.06E-05	UAS family; UAS is a		
3049	0	0	0	0	0	0.000112	0	0	STAT protein, DNA binding	nucleus	calcium ion binding;
3050	0	0	0.00054	0.0003	0.000421	0.000487	0	5.97E-05			
3051	0	0	6.76E-05	1.77E-05	4.68E-05	3.05E-05	3.17E-05	0	B-cell receptor-associated	myosin	ATP binding; DNA binding;
3052	0	0	0	5.33E-05	0	0	0	0	Glutamine	cytoplasm	glutamine-fructose-6-
3053	0	0	0	2.24E-05	0.000357	1.93E-05	0	0	Sterile alpha motif.;	integral to membrane [pmid	calcium ion binding; protein
3054	0	0	0	0	0	3.23E-05	0	0	WD40 domain, found in a		actin binding
3055	0	0.000136	0	0	0	0	0	0	Leucine-rich repeats	cytoplasm [pmid 11375975]	ErbB-2 class receptor
3056	0.002115	0	0.000443	8.68E-05	0.000345	7.49E-05	0	0	Mitochondrial carrier	integral to membrane;	binding
3057	0	0	0.001004	0.001133	0.001324	0.00087	0.000172	0.000211	DEATH domain, found in	actin cytoskeleton;	cytoskeletal adaptor activity
3058	0	0	0	0	4.87E-05	0	0	0	WD40 domain, found in a	nucleus	signal transducer activity
3059	0	0	0	1.81E-05	0	1.56E-05	0	0			
3060	0	0	0.000128	0	0	0	0	0	Vps52 / Sac2 family. Vps52	membrane	
3061	0	0	0.000193	0.000106	0	7.84E-05	0	0			
3062	0	0	4.92E-05	1.93E-05	0	0	0	0	RING-finger (Really	membrane	ATP binding; metal ion
3063	0	0	0.000322	0.000232	0.000168	0.0002	3.78E-05	3.56E-05	Major Vault Protein repeat.	cytoplasm [pmid 7585126];	
3064	0	0	0	0	0	0.000108	0	0	SET domain. SET domains	nucleus	histone-lysine N-
3065	0	0	0	5.05E-05	4.46E-05	0	0	0	Diaphanous GTPase-		actin binding; binding; Rho
3066	0	0	0	3.57E-05	0	0	0	0	Phenylalanyl-tRNA	cytoplasm [pmid 9177188];	ATP binding; ligase activity;
3067	0	0	0	0	0	0	0	3.45E-05	Flavin containing amine	nucleus	oxidoreductase activity;
3068	0	0	9.23E-06	0	0	0	6.5E-06	0			
3069	0	0	0	0	0	0	0	6.31E-06			
3070	0	0	0	0.000123	0	5.29E-05	0.00033	0.000726	Scramblase. Scramblase is	integral to membrane; plasma	calcium ion binding [pmid
3071	0	0	0.001713	0.000756	0.000445	0.001686	0	0.000568	Rab11-like. Rab11a,	Golgi trans face [pmid	GTP binding; GTPase
3072	0.00278	0.01997	0.000255	0.00045	0.000133	0.000216	0	0	Mitochondrial carrier	integral to membrane;	binding
3073	0	0	0.000436	0	0	0	0	0	4Fe-4S binding domain.	membrane fraction;	4 iron, 4 sulfur cluster
3074	0	0	0	8.51E-05	0	7.35E-05	0	0	Protein of unknown function	integral to membrane;	apoptotic protease activator
3075	0	0	0.000215	0.000938	0.002237	0.001486	0	0	Rab2 subfamily. Rab2 is	endoplasmic reticulum;	GTP binding; nucleotide
3076	0.002463	0	0.00029	0.000303	0	0.000698	9.07E-05	0	G-protein alpha subunit. G	cytoplasm [pmid 9175863];	GTP binding; GTPase
3077	0	0	0.000214	0	0	4.82E-05	0	4.73E-05	ABC1 family. This family	mitochondrion	
3078	0	0	0	0.000267	0	0	0.000479	0.000226	Ribosomal L27e protein	intracellular; ribosome [pmid	structural constituent of
3079	0	0	0	0.000794	0.001404	0.000343	0.000238	0.000224			selenium binding [pmid
3080	0	0	0.000117	0.00032	0	0.000355	0	0	DnaJ central domain (4		heat shock protein binding;
3081	0	0	0.00111	0.001016	0.001154	0.000626	0.002085	0.000245			
3082	0	0	0.000449	0.000205	0	0.00038	0.000791	0.000596	RalA/RalB subfamily. The	intracellular; membrane	GTP binding [pmid 2550440];
3083	0	0	0.00046	0.000271	0.000479	0.000857	0	0	Glutathione (GSH)		glutathione peroxidase
3084	0	0	0	0.000147	0	0	0	0			
3085	0	0	0	0.000123	0	0	0	0	Inosine/xanthosine		
3086	0	0	0.000453	0.000177	0.000471	0	6.37E-05	0	Adaptor complexes medium	clathrin vesicle coat; COPI	
3087	0	0	0.000709	6.95E-05	0	0.00018	6.24E-05	0	Adaptor complexes medium	clathrin vesicle coat; coated	protein binding [pmid
3088	0	0	0	0.0008	0.000236	0.000175	0	0.003159	M-Ras/R-Ras-like	intracellular; membrane	GTP binding; nucleotide
3089	0	0	0.000306	0.00016	0	0.000103	0	6.76E-05	GRASP55/65 family.	membrane	protein binding
3090	0	0	0.000222	8.7E-05	0	0	0	0	Heat shock protein 47	endoplasmic reticulum [pmid	collagen binding [pmid
3091	0	0.000994	0.001107	0.000434	0.000128	0.000208	0	0	Peroxisomal membrane	integral to peroxisomal	protein binding [pmid
3092	0	0	0.000235	0.00035	0	0.000171	0.000331	0.000234			
3093	0	0	0	0.0001	0	0.00013	0	8.50E-05	CDC/Septin. Septins are a	contractile ring [pmid	GTP binding; GTPase
3094	0	0	0	5.79E-05	0	0	0	0	Protein of unknown function		
3095	0	0	0	6.34E-05	0	0.000274	0	0	F-actin capping protein	F-actin capping protein	actin binding
3096	0	0	0.000269	0.000527	0.00042	0.000683	0.000379	0.000357	short chain dehydrogenase;	mitochondrial matrix;	3-hydroxybutyrate
3097	0	0	0	5.28E-05	0	0	0	0			
3098	0	0	0	9.05E-05	0	3.9E-05	0	0	effector domain of the CAP	cAMP-dependent protein	cAMP binding; cAMP-
3099	0	0	0	0.000125	0	0	0	0	JAB/MPN domain; Domain	nuclear ubiquitin ligase	enzyme regulator activity
3100	0	0	0.00058	0.000227	0	0.000343	0	0	Annexin. This family of	cytoplasm [pmid 16130169]	calcium ion binding; calcium-
3101	0	0	0	5.79E-05	0	0	0	0	ABC Carbohydrate and	ATP-binding cassette (ABC)	ATP binding [pmid 9878413];
3102	0	0	0	0.000103	0	0	0	0	Sterile alpha motif.;		
3103	0	0	3.55E-05	0	0	0	0	0			
3104	0	0	0	5.81E-05	0	0	0	0	deoxyribonuclease I;	endoplasmic reticulum	deoxyribonuclease activity
3105	0	0	0	4.08E-05	0.000108	0	0	0			
3106	0	0	0	4.37E-05	0	0	0	0	XPC-binding domain.	nucleus [pmid 8168482]	single-stranded DNA binding
3107	0	0	0	1.5E-05	0	2.59E-05	0	0			
3108	0	0	7.03E-05	0	7.31E-05	4.76E-05	0	0	Choline/Carnitine o-	membrane; mitochondrial	acyltransferase activity;
3109	0	0	0	1.48E-05	0	0	2.66E-05	0	WD40 domain, found in a	integral to membrane;	
3110	0	0	7.93E-05	0	0	0	0	0			
3111	0	0	0	1.82E-05	0	1.57E-05	0	0	DDHD domain. The DDHD	cytoplasm [pmid 10400679];	metal ion binding; protein
3112	0	0	0.000221	0	0	0	0	0	Arrestin (or S-antigen), N-	cytoplasm [pmid 10823817];	enzyme inhibitor activity
3113	0	0	0	4.67E-05	0	9.42E-05	2.23E-05	1.67E-05	Myosin motor domain, type	muscle myosin [pmid	actin binding; ATP binding;
3114	0	0	0	0.000154	0	7.59E-05	3.95E-05	3.72E-05	Adaptin C-terminal domain.	clathrin coat of trans-Golgi	binding; transporter activity
3115	0	0	5.6E-05	0.000124	3.88E-05	1.26E-05	6.57E-05	1.24E-05	Fibronectin type 3 domain;	ER-Golgi intermediate	collagen binding [pmid
3116	0	0	7.8E-05	0.000122	0	0.000106	0	0			
3117	0	0	0	0	0	0	6.39E-05	0		cytoplasm [pmid 8707840];	
3118	0	0	2.4E-05	0	0	8.11E-06	0	3.18E-05			
3119	0	0	0	0	0	0	0	3.36E-05	MIF4G domain. MIF4G is		RNA binding
3120	0	0	0	0	0	2.49E-05	0	0	TBC domain. Identification		calcium ion binding
3121	0	0	0	0	0	0	0	4.43E-05	Bicoid-interacting protein 3		methyltransferase activity;
3122	0	0	0	2.03E-05	0	0	0	0			
3123	0	0	0	0	5.15E-05	1.68E-05	0	0			kinase activity
3124	0	0	0	0.000129	0	0	0	0			
3125	0	0	0	1.61E-05	0	0	0	0	La protein, small RNA-		RNA binding
3126	0	0	0	0	0	0	0	1.24E-05	'SWI3, ADA2, N-CoR and	nucleus	DNA binding; protein binding
3127	0	0	3.5E-05	0	0	0	0	0	Putative transcriptional	intracellular; nucleus [pmid	DNA binding; metal ion
3128	0	0	0	1.49E-05	0	5.15E-05	0	0			
3129	0	0	0	0	0	0	0	4.75E-05	Serine/Threonine protein	nucleus [pmid 9427565] [pmid	ATP binding [pmid
3130	0	0	3.65E-05	5.72E-05	0	1.23E-05	0	0	K homology RNA-binding	nucleus; plasma membrane	lipid binding [pmid 1318310];
3131	0	0	0	0	0	0	0	3.30E-05	Helicase superfamily c-		ATP binding; ATP-dependent
3132	0	0	3.35E-05	0.000157	3.48E-05	3.4E-05	0	0			
3133	0	0	6.03E-05	0	0	2.72E-05	0	0	Dopey, N-terminal. DopA is	Golgi membrane [pmid	
3134	0	0	0.000108	2.12E-05	0	2.74E-05	0	0			
3135	0	0	0	3.49E-05	0	0	0	0	Membrane-bound		calmodulin binding
3136	0	0	0	0	0	0	0	4.05E-05	WD40 domain, found in a	endosome [pmid 9606205];	
3137	0	0	0	0	0	0	0.000872	0.000548	PLAC8 family. This family		
3138	0	0	0.000925	0.000181	0	0	0	0	Ribosomal protein S9/S16.	cytosolic small ribosomal	structural constituent of
3139	0	0	0	9.55E-05	0	0	0	0.000808		integral to plasma membrane	binding; lipid transporter
3140	0	0	0	0.000216	0	0	0	0			
3141	0	0.009578	0	0	0	0	0	0	EF-hand, calcium binding		calcium ion binding;
3142	0	0	0.000667	0.001482	0	0.000677	0	0.000295	Rab6 subfamily. Rab6 is	Golgi apparatus [pmid	GTP binding; GTPase
3143	0	0	0	3.83E-05	0.000203	0	0	0	WD40 domain, found in a	actin cytoskeleton [pmid	actin binding
3144	0	0	0	0.00013	0	0.000393	0	0	Zn-dependent hydrolases,		
3145	0	0	0.000156	0.000258	2.25E-05	0.000245	1.52E-05	2.87E-05	Spectrin repeats, found in	cytoskeleton; membrane;	actin binding; actin filament
3146	0	0	0.000168	6.6E-05	0	5.69E-05	0	0			
3147	0	0	0	0.000104	0	0	0	0	Rab30 subfamily. Rab30	Golgi stack [pmid 9792283];	GTP binding; GTPase
3148	0	0	0	0	0	0	0.000143	0.000269		intracellular [pmid 11256614]	
3149	0	0	0	0.000401	0.000213	0.000416	0.000288	0.000272	ATP synthase (E/31 kDa)	plasma membrane; proton-	hydrogen-transporting ATP
3150	0.001249	0	0.001045	0.001383	0.000272	0.00115	0.001932	0.00182	Arylesterase. This family	extracellular region;	aryldialkylphosphatase
3151	0	0	0	0	0	0	5.53E-05	0	Plasminogen activator	extracellular region [pmid	heparin binding [pmid
3152	0	0.000994	0	0	0	0	0	0			
3153	0	0	0	0.00018	0	5.17E-05	0	0	alpha/beta hydrolase fold.		acylglycerol lipase activity;
3154	0	0	0.000151	2.95E-05	0	0.000102	0	0			
3155	0	0	0	0.00011	0	0	0	0	This cd contains two		cAMP-dependent protein
3156	0	0	6.31E-05	0.000173	0	0.000342	0.000222	0	Squalene cyclase (SQCY)		isomerase activity;
3157	0	0	0	3.72E-05	0	0	0	0	RNA recognition motif;	nucleus [pmid 10893231];	BRE binding [pmid
3158	0	0	0	3.77E-05	0	6.51E-05	0	6.38E-05	Zinc knuckle. The zinc	nucleus	metal ion binding; nucleotide
3159	0	0	0	0	0	0	0	4.08E-05	WD40 domain, found in a	cytoplasm [pmid 10748158];	calmodulin binding [pmid
3160	0	0	0	3.73E-05	0	0	0	0	CP2 transcription factor.	nucleus	transcription factor activity
3161	0	0	8.52E-05	0.000267	8.86E-05	0.000231	6E-05	0.000113	Pyruvate kinase, barrel		magnesium ion binding;
3162	0	0	0.00039	0.000344	0	0.00033	0.000137	0			
3163	0	0	0.004717	0.005429	0.00538	0.004814	0.00591	0.003028		extracellular region [pmid	antioxidant activity [pmid
3164	0	0	0	0	0	0	0	4.61E-05	Phosphoglucomutase/phos		isomerase activity;
3165	0	0	0	2.21E-05	0	0	0	0	Protein tyrosine	cytoplasm; integral to plasma	hydrolase activity; protein
3166	0	0	0	4.94E-05	0	0	0	0	Class II Aldolase and	actin cytoskeleton; membrane	actin binding [pmid
3167	0	0	0	0.000126	0.000191	0.000233	0	0	Myosin motor domain, type	myosin	actin binding; ATP binding;
3168	0	0	0	2.91E-05	0	0	0.000137	1.67E-05	Myosin motor domain, type	myosin [pmid 7499478]	actin binding [pmid
3169	0	0	0.000707	0.00032	0.001358	0.000184	0.000115	3.61E-05	Carbohydrate		glycogen phosphorylase
3170	0	0	0.000175	0.000114	4.03E-05	5.91E-05	0	0			
3171	0	0	0.00133	0.001042	0.000462	0.0009	0.000347	0.000131	Alpha adaptin AP2, C-	AP-2 adaptor complex;	binding; lipid binding;
3172	0	0	0	0	0	0	0	1.00E-05	Helicase superfamily c-	nucleus	ATP binding; DNA binding;
3173	0	0	0	0	0	0	0	3.86E-05			
3174	0	0	0	5.35E-06	0	0	0	1.81E-05	Protein of unknown function	intracellular [pmid 11381254]	intracellular transporter
3175	0	0	0	0.000559	0	0.000138	0.003444	0.004731	Cytochrome C oxidase		
3176	0	0	0.00039	0.000917	0.001216	0.000616	0.000915	0.000431	Mitochondrial carrier	integral to plasma membrane	binding; phosphate carrier
3177	0	0	0.002155	0.000169	0	0.000243	0.001214	0	Tricarboxylate carrier;	integral to membrane;	cation transporter activity;
3178	0	0	0.000758	0.000149	0.000158	0.00018	0.000214	0.000201	Tetratricopeptide repeat	integral to membrane;	protein binding [pmid
3179	0.000949	0.008603	0.007147	0.010428	0.010541	0.009853	0.008239	0.011355	Long-chain acyl-CoA	integral to membrane;	ligase activity; long-chain-
3180	0	0	0.000274	0.000429	0.000285	0.001297	0.001735	0	Cytochrome c oxidase	membrane; mitochondrion	cytochrome-c oxidase
3181	0	0	0	0	0	0	0	0			
3182	0	0	0	0	0	0	0	0	Apoptosis regulator	integral to membrane;	protein binding [pmid

rk	NEs detected # out of 10 runs	NEs dNSAF_A VG	MMs detected # out of 8 runs	MMs dNSAF_A VG	NEs:MMs	Detected in Mito	ORTHO_GROUP	GENE_NAME	NET_NAME	Location & Gene Expression Data	Locus	Description	Length	MW	pI	PredHel	TMHMM_Topology	SIGNALP _HMM_P OS	SIGNALP _HMM_S PROB	RESTING LYMPHOCYTES NEs HsNaOH-NE_NT_lymphocytes_CNBrTl_1_dNSAF	HsNaOH-NE_NT_lymphocytes_Tl_1_dNSAF	HsSD-NE_NT_lymphocytes_PK_1_dNSAF	HsSD-NE_NT_lymphocytes_Tl_1_dNSAF	NT-dNEs Detected # Out of 5	NT-dNEs dNSAF AVG	NT-dNEs dNSAF SDV	PHA-TREATED LYMPHOCYTES NEs HsNaOH-NE_PHA_lymphocytes_CNBrTl_1_dNSAF	HsNaOH-NE_PHA_lymphocytes_Tl_1_dNSAF	HsSD-NE_PHA_lymphocytes_PK_1_dNSAF	HsSD-NE_PHA_lymphocytes_Tl_1_dNSAF	PHA-NEs Detected # Out of 5	PHA-NEs dNSAF AVG	PHA-NEs dNSAF SDV	MMs MmNaOH-MM_liver_CNBrTl_1_dNSAF	MmNaOH-MM_liver_Tl_2_dNSAF	RnNaOH-MM_liver_Tl_1_dNSAF	RnNaOH-MM_liver_Tl_2_dNSAF	RnNaOH-MM_liver_Tl_3_dNSAF	RnNaOH-MM_liver_Tl_4_dNSAF	RnNaOH-MM_liver_PK_1_dNSAF	RnNaOH-MM_liver_PK_2_dNSAF	Region_Note	GO_Component	GO_Function
3183	5	0.000872	0	0	INF	Y	ENSG00000212875:ENPF	MT-CO1			ENSG00000198804:MT-CO1	cytochrome c oxidase subun	513	57041	6.7	12	20-42c57-A	31	0.208	0	0.000136	0.005226	3.44E-05	3	0.001596	0.003085	0	0.000131	0	0.000449	3	0.000145	0.000212	0	0	0	0	0	0	0	0	Cytochrome C oxidase	Cytochrome c	
3184	5	0.000181	1	0.000364	0.497365	Y	ENSG00000212870:MT-ND5	MT-ND5			ENSG00000198786:MT-ND5	NADH dehydrogenase subun	603	67013	9	15	35-57c85-S	22	0.789	0	0.000851	0	8.79E-05	2	0.000235	0.000413	0	0.000846	0	6.37E-05	3	0.000128	0.000215	0.002913	0	0	0	0	0	0	0	NADH-		
3185	5	0.000259	1	5.04E-05	5.144779	Y	ENSG00000198763:MT-ND4	MT-ND4			ENSG00000198886:MT-ND4	NADH dehydrogenase subun	459	51681	9.4	10	23-45c105-S	18	0.797	0.000707	0.00065	0	3.85E-05	3	0.000339	0.000271	0	0.000463	0	8.36E-05	3	0.000208	0.000327	0	0.000463	0	0	0	0	0	0	NADH-		
3186	5	0.000153	0	0	INF	Y	ENSG00000173371:MTK1	MTK1			ENSG00000198763:MTK1	mitochondrial tRNA methyl	396	45477	9.8	1	42c1-443-G	37	0.955	0	0.000604	0	0	1	0.000119	0.000191	0	0.000481	0.000105	0.000165	3	0.000188	0.000207	0	0	0	0	0.000505	0	0	GST_C family, Metaxin	integral to membrane [pmid	
3187	4	0.000322	3	0.000236	1.361875	Y	ENSG00000166136:NDUFB8	NDUFB8			ENSG00000166136:NDUFB8	NADH dehydrogenase (ubiq	186	21766	6.8	1	124-146c-Q	19	0.107	0	0.000878	0	0.00038	2	0.000314	0.000416	0	0.000965	0	0.00351	2	0.000329	0.000455	0	0	0	0.000505	0	0	NADH dehydrogenase	endoplasmic reticulum [pmid	NADH dehydrogenase
3188	4	0.000101	2	2.22E-05	4.54737	Y	ENSG00000131269:ABCB7	ABCB7			ENSG00000131269:ABCB7	ATP-binding cassette, sub-fa	753	82769	9.3	5	143-165c-F	37	0.924	0.000247	0.000181	0	0.000779	1	0.000147	0.000181	0	0.000779	0	4.33E-05	2	5.55E-05	8.47E-05	0	0	0	0	0	0	0	ABC transporter	integral to membrane;	ATP binding [pmid 9621516];
3189	4	9.89E-05	0	0.006014	0.016445	Y	ENSG00000197142:ACSL5	ACSL5			ENSG00000197142:ACSL5	acyl-CoA synthetase long-ch	739	82263	7.4	0	43-65721-	0	0	0	0.00041	0	7.17E-05	2	0.000121	0.000196	0	0.000243	0	6.63E-05	0	0	0	0	0	0	0	0	Long-chain acyl-CoA	integral to membrane;	catalytic activity; ligase
3190	4	7.95E-05	6	0.000271	0.29373	Y	ENSG00000156709:AFM1	AFM1			ENSG00000156709:AFM1	programmed cell death 8 isof	609	66295	8.9	1	62-81c	23	0.031	0	0.000306	0	5.8E-05	2	9.11E-05	0.000146	0	0.000111	0	0.00161	0	0	0	0	0	0	0	0	Pyridine nucleotide-	mitochondrion [pmid	disulfide oxidoreductase
3191	3	0.000387	6	0.002158	0.17957	Y	ENSG00000111775:COX6A1	COX6A1			ENSG00000111775:COX6A1	mitochondrial ribosomal pro	109	12155	9.5	1	c40-59	54	0.131	0	0.000851	0	0.00132	1	0.000377	0.00113	0	0.000377	0	0.002396	0.00074	0	0.000775	0.00113	0	0.00049	0.000847	0.002538	0.003815	0.001659	Cytochrome c oxidase	membrane; mitochondrial	cytochrome-c oxidase
3192	3	0.0001	8	0.020355	0.004922	Y	ENSG00000166347:CYBSA	CYBSA			ENSG00000166347:CYBSA	cytochrome b-5 isoform 1 [H	134	15330	5	1	109-131c	0	0	0	0	0	0.000132	1	3.3E-05	6.59E-05	0	0.00067	0	0.005218	0	0.000167	0.000335	0.016496	0.01812	0.004833	0.010828	0.023334	0.016587	0.040351	0.032288	Cytochrome b5-like	endoplasmic reticulum;	cytochrome-c oxidase
3193	3	0.000188	2	3.9E-05	4.824212	Y	ENSG00000213398:SLC25A22	SLC25A22	NET44		ENSG00000213398:SLC25A22	mitochondrial carrier protei	323	34000	8.3	1	112-31c	0	0.059	0	0.000361	0	0.000656	1	0.000206	0.000317	0	0.000496	0	0.000317	0	0.000245	0.000168	0	0	0	0	0	0	0	Mitochondrial carrier	integral to membrane;	binding; carrier activity [pmid
3194	3	0.000165	4	0.000421	0.391562	Y	ENSG00000198888:MT-ND1	MT-ND1			ENSG00000198888:MT-ND1	NADH dehydrogenase subun	318	35661	6.5	8	34-2368-B	19	0.94	0	0.000513	0	0	1	0.000128	0.000257	0	0.000584	0	0.000241	2	0.000201	0.000267	0	0	0	0	0	0	0	NADH dehydrogenase;		
3195	3	0.000107	1	7.68E-06	13.94085	Y	ENSG00000126821:SGPP1	SGPP1			ENSG00000126821:SGPP1	sphingosine-1-phosphate phi	441	49108	8.8	7	131-153c	22	0.001	0	0.00037	0	8.01E-05	2	0.000113	0.000176	0	0.000407	0	0	0	0	0	0	0	0	0	6.15E-05	0	0	PAP2_like proteins,	endoplasmic reticulum;	hydrolase activity
3196	3	9.69E-05	0	0	INF	Y	ENSG00000198712:MTND2	MT-ND2			ENSG00000198712:MTND2	mitochondrial ribosomal pro	347	38961	9.8	6	67-29c69-A	24	0.372	0	0.000388	0	5.09E-05	2	0.000161	0.000288	0	0.000388	0	0	0	0	0	0	0	0	0	0	0	0	NADH-		
3197	3	0.00011	5	0.000129	0.858222	Y	ENSG00000168924:LETM1	LETM1			ENSG00000168924:LETM1	leucine zipper-EF-hand conta	739	83354	6.7	1	206-228c	43	0.036	0	0.0006	0	7.17E-05	2	0.000168	0.00029	0	0.000213	0	0	0	0	0	0	0	0	0	6.26E-05	0.000344	0	0.000191	0.000309	0.000125	LETM1 protein	integral to plasma membrane	calcium ion binding [pmid
3198	3	4.55E-05	2	2.49E-05	1.826464	Y	ENSG00000144919:COX15	COX15			ENSG00000144919:COX15	COX15 homolog isoform 1 p	320	36422	9.2	3	68-90c15-E	32	0.44	0	0.000114	0	8.62E-05	2	5E-05	5.88E-05	0	0.000164	0	0	0	0	0	0	0	0	0	0.000112	8.78E-05	0	0	Uncharacterized protein	integral to membrane;	cytochrome-c oxidase
3199	3	3.72E-05	0	0	INF	Y	ENSG00000119711:ALDH6A1	ALDH6A1			ENSG00000119711:ALDH6A1	methylmalonate-semialdeh	535	57840	8.5	1	174-196c	5	0.81	0	0	0	0.000165	1	4.13E-05	8.25E-05	0	0	0	6.1E-05	7.18E-05	0	3.32E-05	3.86E-05	0	0	0	0	0	0	0	Aldehyde dehydrogenase	mitochondrion [pmid 15270993]	acyl-CoA binding; malonate-
3200	3	4.11E-05	2	4.63E-05	0.88606	Y	ENSG00000136521:NDUFB5	NDUFB5			ENSG00000136521:NDUFB5	NADH dehydrogenase (ubiq	189	21750	9.6	1	70-92c	35	0.916	0	0.000123	0	0	1	3.09E-05	6.17E-05	0	0.000119	0	8.63E-05	0	0	0	0	0	0	0	0	0	0	Cytochrome c1 [Energy	mitochondrion	NADH dehydrogenase
3201	2	0.00015	8	0.028343	0.005284	Y	ENSG00000008394:MGST1	MGST1			ENSG00000008394:MGST1	microsomal glutathione S-tra	155	17599	9.4	1	c15-37	0	0.36	0	0.001053	0	0	1	0.000353	0.000527	0	0.000145	0	0	0	0	0	0	0	0	0	0	0	0	0	MAPEG family. This family	membrane;	glutathione transferase
3202	2	6.33E-05	0	0	INF	Y	ENSG00000115944:COX7A2L	COX7A2L			ENSG00000115944:COX7A2L	cytochrome c oxidase subun	114	12615	9.4	1	i86-108c	0	0.18	0	0.016	0	0.00031	1	7.75E-05	0.000155	0	0.000197	0	0	0	0	0	0	0	0	0	0	0	0	0	Cytochrome c oxidase	mitochondrial electron	cytochrome-c oxidase
3203	2	6.23E-05	0	0	INF	Y	ENSG00000156398:SFXN2	SFXN2			ENSG00000156398:SFXN2	sideroflexin 2 [Homo sapiens	322	36232	9.4	5	c100-122c	0	0	0	0.00029	0	0	1	7.24E-05	0.000145	0	0.000209	0	0	0	0	0	0	0	0	0	0	0	0	0	Tricarboxylate carrier;	integral to membrane;	
3204	2	5.89E-05	2	4.09E-05	1.438975	Y	ENSG00000188603:LZIKN3	LZIKN3			ENSG00000188603:LZIKN3	zeinoid lipofuscinoids, neuron	438	47923	6.4	1	i38-60c99-G	59	0	0	0.00029	0	0	1	0.000133	0.000205	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
3205	2	9.89E-05	0	0	INF	Y	ENSG00000112695:CCDC72A2	CCDC72A2			ENSG00000112695:CCDC72A2	cytochrome c oxidase subun	83	9396	9.7	1	i53-75c	20	0.013	0	0.000562	0	0.000213	1	0.000194	0.000265	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Cytochrome c oxidase	membrane; mitochondrial	cytochrome-c oxidase
3206	2	2.55E-05	6	0.000993	0.258069	Y	ENSG00000170031:KNX0	KNX0			ENSG00000170031:KNX0	dynamitin-like 2 [Homo sapiens	486	55757	8.9	1	c385-404c	25	0.198	0	9.9E-05	0	0	1	2.4E-05	4.8E-05	0	9.23E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	2-polyprenyl-6-	integral to membrane;	electron carrier activity [pmid
3207	2	4.37E-05	0	0	INF	Y	ENSG00000212869:MT-ND6	MT-ND6			ENSG00000212869:MT-ND6	NADH dehydrogenase subun	174	18622	4.2	6	i2-21c46-A	16	0.315	0	0	0	0	1	0.000121	0	0	0.000129	0	0	0	0.000221	2	8.74E-05	0.000108	0	0	0	0	0	0	0			
3208	2	1.66E-05	3	2.73E-05	0.609151	Y	ENSG00000197912:SPG7	SPG7			ENSG00000197912:SPG7	spastic paraplegia 7 isoform	795	88235	8.7	2	c145-167c	17	0.674	0	8.8E-05	0	4.44E-05	2	3.31E-05	4.22E-05	0	0	0	0	0	0	0	0	0	0.000124	7.31E-05	0	2.1E-05	0	0	FtsH Extracellular. This	extracellular matrix (sensu	ATP binding; metal ion
3209	2	0.000107	4	4.22E-05	2.54265	Y	ENSG00000128868:CYB	CYB			ENSG00000128868:CYB	cytochrome b [Homo sapiens	378	42442	9	6	c333-357c	49	0.041	0.000858	0	0	0	1	0.000215	0.000429	0	0	0	0	0	0	0	0	0	0.000122	4.77E-05	0.000127	4.12E-05	0	0	Cytochrome b [N-		
3210	1	9.79E-05	0	0	INF	Y	ENSG00000119013:NDUFB3	NDUFB3			ENSG00000119013:NDUFB3	NADH dehydrogenase (ubiq	98	11402	9.2	1	c66-88i	0	0	0	0	0	0	1	0	0	0	0.000783	1	0	0	0	0	0	0	0	0	0	0	0	0	0	NADH dehydrogenase	mitochondrion	NADH dehydrogenase
3211	1	9.3E-05	3	0.000275	0.338095	Y	ENSG00000147678:ATPS12	ATPS12			ENSG00000147678:ATPS12	ATP synthase, H+ transporti	94	10518	8.7	0	c63-82i	43	0	0	0.000744	0	0	1	0.000198	0.000372	0	0	0	0	0	0	0	0	0	0.000206	0.00164	0.000356	0	0	0	0	mitochondrion; protein-	mitochondrion [pmid	hydrogen ion transporter
3212	1	1.97E-05	0	0	INF	Y	ENSG00000131748:STARD3	STARD3			ENSG00000131748:STARD3	START-related lipid transfer (S	340	50516	8.4	1	i52-74c04-	30	0.055	0	0.000157	0	0	1	3.93E-05	7.86E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	START(Steroidogenic	cytoplasm [pmid 9139840];	cholesterol binding [pmid
3213	1	1.13E-05	1	9.9E-06	1.141636	Y	ENSG00000115317:HTRA2	HTRA2			ENSG00000115317:HTRA2	HtrA serine peptidase 2 isofo	361	38493	10.7	1	i105-124c	35	0.598	0	0	0	0	1	0	0	0	9.04E-05	0	0	0	0	0	0	0	0	0	7.92E-05	0	0	0	0	PDZ domain of bacterial	endoplasmic reticulum [pmid	serine-type endopeptidase
3214	1	6.46E-06	2	9.35E-06	0.690649	Y	ENSG00000121057:AAAP1	AAAP1			ENSG00000121057:AAAP1	A-kinase anchor protein 1 pm	903	97342	4.9	1	i7-26c	53	0.727	0	5.17E-05	0	0	1	1.29E-05	2.58E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	3.67E-05	3.81E-05	0	0	K homology RNA-binding	integral to membrane;	RNA binding [pmid 8769136]
3215	10	0.003776	8	0.001189	3.175385	Y	ENSG00000110955:ATP5B	ATP5B			ENSG00000110955:ATP5B	ATP synthase, H+ transporti	529	56560	5.4	0	o	S	43	0.797	0.003066	0.002028	0.00071	0.008916	5	0.00368	0.003621	0.005117	0.003435	0.007651	0.001887	5	0.003873	0.002598	0.001671	0.001765	0.001487	0.001509	0.000727	0.001568	0.000554	0.000232	F1 ATP synthase beta	mitochondrion; proton-	ATP binding; hydrogen-
3216	9	0.003603	8	0.001104	3.26311	Y	ENSG00000152234:ATP5A1	ATP5A1			ENSG00000152234:ATP5A1	ATP synthase, H+ transporti	553	59751	9.1	0	o	S	39	0.48	0.002002	0.001858	0.000679	0.008613	5	0.003416	0.003271	0.005119	0.003398	0.005459	0.001319	5	0.003398	0.00212	0.000759	0.000676	0.001556	0.001574	0.001044	0.001968	0.000585	0.000777	F1 ATP synthase alpha.	membrane fraction;	ATP binding; hydrogen-
3217	8	0.005034	1	1.83E-05	275.5807	Y	ENSG00000067225:PKM2	PKM2			ENSG00000067225:PKM2	pyruvate kinase, muscle isofo	531	57937	7.6	0	o	S	24	0.089	0.008551	0.00245	0	0.007917	5	0.004732	0.004175	0.001672	0.004014	0.014353	0.001301	5	0.005335	0.006131	0	0	0	0	0	0	0.000146	0	Pyruvate kinase (PK):	cytoplasm [pmid 11256614];	magnesium ion binding;
3218	8	0.00378	0	0	INF	Y	ENSG00000167055:FHB	FHB			ENSG00000167055:FHB	fibrinogen beta chain precur	272	29294	5.8	0	o	S	26	0.848	0.003577	0.006003	0.004835	0.05578	5	0.005449	0.004104	0	0.005479	0	0.003	0	0.002371	0.002409	0	0	0	0	0	0	0	Band_7_prohibitin. A	integral to plasma membrane	protein binding [pmid
3219	8	0.003923	6	0.002047	1.916287	Y	ENSG00000179091:CYC1	CYC1			ENSG00000179091:CYC1	cytochrome c-1 [Homo sapie	325	35390	9	0	o	S	20	0.741	0.010977	0.001507	0.000578	0.00761	5	0.004366	0.00503	0.015023	0.002002	0.00302	0.000306	5	0.004391	0.007135	0.013603	0	0.000851	0.001057	0.002295	0.000384	0	0.000188	Cytochrome c1 [Energy	mitochondrion	cytochrome c-type
3220	8	0.001597	6	0.000329	4.855454	Y	ENSG00000167553:TUBA1C	TUBA1C			ENSG00000167553:TUBA1C	tubulin alpha 6 [Homo sapier	449	49895	5.1	0	o	S	20	0.005	0.002956	0	0.004324	0.000341	5	0.001905	0.002084	0.003295	0.001332	0.000528	0	0.001289	0.001446	0	0	0	0	0	0	0	6.83E-05	0	The tubulin superfamily	microtubule; protein complex	GTP binding; GTPase
3221	8	0.001633	5	5.45E-05	29.94052	Y	ENSG00000213671:CAC1	CAC1			ENSG00000213671:CAC1	aldehyde dehydrogenase 2 [H	124	13611	6.9	0	o	S	12	0.107	0.000576	0.002268	0	0.000394	5	0.001237	0.002574	0	0.000537	0.000576	0.001168	5	0.000577	0.000376	0	0	0	0	0	0	0	9.77E-05	0	Mitochondrial carrier	integral to plasma membrane	oxoglutarate/malate
3222	7	0.00204	0	0.000333	6.120539	Y	ENSG00000078668:VDAC3	VDAC3			ENSG00000078668:VDAC3	voltage-dependent anion cha	283	30659	8.6	0	o	S	0	0.000573	0.002837	0.004487	0.002115	0.000247	5	0.002511	0.001677	0	0.000312	0.000196	0.002137	5	0.00157	0.001308	0	0	0	0	0	0	0	0.000115	0.000217	Eukaryotic porin;	cytoplasm [pmid 9207238];	voltage-gated anion channel
3223	7	0.001295	8	0.011895	6.108904	Y	ENSG00000100243:CYB5R3	CYB5R3			ENSG00000100243:CYB5R3	cytochrome b5 reductase 3e	301	34235	7.6	0	o	S	33	0.681	0.003233	0.002092	0.001248	0.002093	5	0.001717	0.00125	0	0.001714	0.00038	0.001403	5	0.000874	0.000815	0.01175	0.001241	0.005532	0.010062	0.011686	0.013157	0.022076	0.019675	Oxidoreductase NAD-	cytoplasm [pmid 9207238];	cytochrome-b5 reductase
3224	7	0.000824	0	0.000842	0.979804	Y	ENSG00000139180:NDUFA9	NDUFA9			ENSG00000139180:NDUFA9	NADH dehydrogenase (ubiq	377	41920	8.4	1	o	S	31	0.783	0.003611	0.000687	0	0.000938	5	0.001177	0.000776	0.001177	0.000273	0.002374	0.000204	5	0.000911	0.000627	0	0	0	0	0	0	0	0.000204	0	Predicted nucleotide-	mitochondrion [pmid	NADH/
3225	7	0.000148	2	3.06E-06	48.5062	Y	ENSG00000167978:SRRM2	SRRM2			ENSG00000167978:SRRM2	splicing coactivator subunit 3	2752	299616	12.1	0	o	S	18	0	0.000178	0.000478	3.21E-05	0.000194	5	0.000172	0.000218	0.000423	0.000207	0.000423	0.000207	5	0.000425	0.000359	0	0	0.6TE-06	1.78E-05	0	0	0	0	0	0	0			
3226	6	0.002143	0	0	INF	Y	ENSG00000127184:COX7C	COX7C			ENSG00000127184:COX7C	cytochrome c oxidase subun	63	8000	9.6	0	o	S	51	0.001	0	0.000444	0	0.001122	5	0.000398	0.000273	0.000206	0.000273	0.000206	0.000273	5	0.000398	0.000359	0	0	0	0	0	0	0	0	0	Cytochrome c oxidase	membrane;	cytochrome-c oxidase
3227	6	0.00549	3	0.000302	18.17435	Y	ENSG00000213585:VDAC4	VDAC4			ENSG00000213585:VDAC4	voltage-dependent anion cha	283	30773	8.5	0	o	S	0	0	0.009148	0.002656	0.008364	0	0.005042	0.004435	0	0.010861	0	0.006113	0.006782	5	0.005994	0.004481	0	0	0	0	0	0	0	0	0	Eukaryotic porin;	integral to membrane;	
3228	6	0.002876	0	0	INF	Y	ENSG00000172974:LOC729317	LOC729317			ENSG00000172974:LOC729317	PREDICTED: similar to volta	293	31479	7.6	0	o	S	20	0.008	0	0.005254	0.000641	0.004823	5	0.00268	0.002742	0	0.005743	0	0.00078	0.005765	5	0.003072	0.003113	0	0	0	0	0	0	0	0	0	Eukaryotic porin;		
3229	6	0.001087	6	0.000142	7.65472	Y	ENSG00000164024:YWHAZ	YWHAZ			ENSG00000164024:YWHAZ	tyrosine 3-monooxygenase/	245	27745	4.8	0	o	S	0	0	0.000815	0	0.000841	5	0.000841	0.000511	0	0.002864	0	0.000711	0.000511	5	0.001421	0.01327	0	0	0	0	0	0	0	0	0	14-3-3 protein; gi	gen0244		protein domain specific
3230	6	0.001237	0	0	INF	Y	ENSG00000025708:ECGF1	ECGF1			ENSG00000025708:ECGF1	endothelial cell growth factor	482	49955	5.5	0	o	S	14	0.043	0.003364	0.00229	0	0.000183	5	0.00096	0.001608	0.005525	0.003972	0	0.000159	5	0.001514	0.002678	0	0	0	0	0	0	0	0	0	Glycosyl transferase family	extracellular space; soluble	growth factor activity;
3231	6	0.001214	0	0	INF	Y	ENSG00000172977:HPD1	HPD1			ENSG00000172977:HPD1	chaperonin [Homo sapiens]	573	61355	5.9	0	o	S	28	0.175	0.002283	0.000325	0	0.000288	5	0.000377	0.001355	0	0.000401	0	0.00042	0	0	0	0	0	0	0	0	0	0	0	0	CrdS_like type I	cytoplasm [pmid 16130169];	ATP binding; chaperone
3232	6	0.000427	6	0.000407	1.04999	Y	ENSG00000088475:HADHA	HADHA			ENSG00000088475:HADHA	mitochondrial trifunctional pr	763	82933	9.2	0	o	S	24	0.108	0	0.000343	0	0.00081	5	0.00031	0.00039	0	0.000544	0.00064	0	0.001476	0.000201	5	0.00039	0.000384	8.04E-05	0.001394	0.000856	0.001899	0.000349	0.000384	8.04E-05	3-hydroxyacyl-CoA	fatty acid oxidation	3-hydroxyacyl-CoA
3233	6	0.000408	0	0	INF	Y	ENSG00000182054:IDH2	IDH2			ENSG00000182054:IDH2	isocitrate dehydrogenase 2 (	452	50909	8.7	0	o	S	33	0.429	0.000359	0.001032	0	0.000703	5	0.000524	0.000444	0	0.000447	0	0.000469	0.000255	5	0.000293	0.000218	0	0	0	0	0	0	0	0	0	isocitrate dehydrogenase;	mitochondrion [pmid 8707889]	isocitrate dehydrogenase
3234	6	0.000244	3	3.84E-05	6.183993	Y	ENSG00000164252:MDH2	MDH2			ENSG00000164252:MDH2	malate dehydrogenase [Hom	338	36496	8.9	0	o	S	0.38	0.006096	0.002087	0.000261	0	0.000341	5	0.000241	0.000184	0	0.000451	0	0.000215	0	0	0	0	0	0	0	0	0	0	0	0	malate dehydrogenase	mitochondrion	L-lactate dehydrogenase
3235	6	0.000939	0	0	INF	Y	ENSG00000015475:BID	BID			ENSG00000015475:BID	BH3 interacting domain death	241	26836	7.1	0	o	S	0.451	0.002692	0.00029	0	0.00066	5	0.00091	0.001218	0.003684	0.000188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	BH3 interacting domain	cytoplasm; cytosol [pmid	death receptor binding [pmid
3236	5	0.001098	0	0	INF	Y	ENSG00000163541:SUCLG1	SUCLG1			ENSG00000163541:SUCLG1	succinate-CoA ligase, GDP-l	346	36250	8.8	0	o	S	25	0.778	0	0	0.001086	0.000153	5	0.00031	0.000522	0	8.48E-05	0	4.72E-05	0.007433	5	0.000381	0.000639	0	0	0	0	0	0	0	0	0			
3237	5	0.000865	1	0.003007	0.280207	Y	ENSG00000106119:SCS	SCS			ENSG00000106119:SCS	succinyl-CoA synthetase horm	303	33331	6	0	o	S	19	0.468	0.001067	0.001694	0	0.000175	5	0.000368	0.000905	0	0.000929	0	0.00152	5	0.000388	0.001008	0.002918	0	0	0	0	0	0	0	0	0	Mitochondrial carrier	integral to membrane;	binding
3238	5	0.00023	3	8.81E-05	2.604223	Y	ENSG00000158864:NDUFS2	NDUFS2			ENSG00000158864:NDUF

																							RESTING LYMPHOCYTES NEs								PHA-TREATED LYMPHOCYTES NEs								MMs										
rk		NEs detected # out of 10 runs	NEs dNSAF_AVG	MMs detected # out of 8 runs	MMs dNSAF_AVG	NEs:MMs	Detected in Mitochondria	ORTHO_GROUP	GENE_NAME	NET_NAME	Location & Gene Expression Data	Locus	Description	Length	MW	pI	PredHel	TMHMM_Topology	SIGNALP_HMM_TYPE (S= signal; A= Anchor; Q= none)	SIGNALP_HMM_POS	SIGNALP_HMM_PROB	HsNaOH-NE_NT_lymphocytes_CNBrTI_1_dNSAF	HsNaOH-NE_NT_lymphocytes_TI_1_dNSAF	HsNaOH-NE_NT_lymphocytes_PK_1_dNSAF	HsSD-NE_NT_lymphocytes_TI_1_dNSAF	RnNaOH-NE_NT_lymphocytes_PK_1_dNSAF	NT-bNEs Detected # Out of 5	NT-bNEs dNSAF AVG	NT-bNEs dNSAF SDV	HsNaOH-NE_PHA_lymphocytes_CNBrTI_1_dNSAF	HsNaOH-NE_PHA_lymphocytes_TI_1_dNSAF	RnNaOH-NE_PHA_lymphocytes_PK_1_dNSAF	HsSD-NE_PHA_lymphocytes_TI_1_dNSAF	HsSD-NE_PHA_lymphocytes_PK_1_dNSAF	PHA-bNEs Detected # Out of 5	PHA-bNEs dNSAF AVG	PHA-bNEs dNSAF SDV	MmNaOH-MM_liver_CNBrTI_1_dNSAF	MmNaOH-MM_liver_CNBrTI_2_dNSAF	RnNaOH-MM_liver_TI_1_dNSAF	RnNaOH-MM_liver_TI_2_dNSAF	RnNaOH-MM_liver_TI_3_dNSAF	RnNaOH-MM_liver_TI_4_dNSAF	RnNaOH-MM_liver_PK_1_dNSAF	RnNaOH-MM_liver_PK_2_dNSAF	Region_Note	GO_Component	GO_Function
3329		2	9.18E-06	0	0	INF	Y	ENSG00000136143	SUCLA2			gi|11321583|ref|NP_	succinate-CoA ligase, ADP-fo	463	50317	7.4	0	o	Q	30	0.097	0	0	0	3.82E-05	-	1	9.54E-06	1.91E-05	0	0	-	3.52E-05	0	1	9.81E-06	1.76E-05	0	0	0	0	0	0	0	0	CoA-ligase. This family	mitochondrion [pmid	ATP binding; ligase activity;
3330		2	1.47E-05	0	0	INF	Y	ENSG00000112294	ALDH5A1			gi|25777721|ref|NP_	aldehyde dehydrogenase 5A	548	58653	8.1	0	o	S	64	0.531	0	8.51E-05	0	3.22E-05	-	2	2.93E-05	4.02E-05	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	NAD-dependent aldehyde	mitochondrion [pmid 9683595]	oxidoreductase activity;
3331		2	1.44E-05	1	8.91E-06	1.616985	Y	ENSG00000091140	DLD			gi|9199540|ref|NP_	dihydrolipoamide dehydroge	509	54177	7.9	0	o	Q	37	0.039	0	4.58E-05	0	6.94E-05	-	2	2.88E-05	3.46E-05	0	0	-	0	0	0	0	7.13E-05	0	0	0	0	0	0	0	0	Pyridine nucleotide-	cytoplasm; mitochondrion	dihydrolipoyl dehydrogenase
3332		1	0.00042	0	0	INF	Y	ENSG00000131174	COX7B			gi|4502991|ref|NP_0	cytochrome c oxidase subun	80	9160	10.3	0	o	Q	23	0.002	0	0	0	0	-	0	0	0	0	0	0	-	0	0.003359	0	1	0.00084	0.001679	0	0	0	0	0	0	0	Cytochrome C oxidase	Integral to membrane;	cytochrome-c oxidase
3333		1	8.29E-05	3	0.000322	0.257452	Y	ENSG00000115286	NDUFS7			gi|38524585|ref|NP_	NADH-ubiquinone oxidoredu	213	23580	10	0	o	S	28	0.771	0	0	0	0.000663	-	1	0.000166	0.000332	0	0	-	0	0	0	0	0	8.32E-05	0.002207	0.000287	0	0	0	0	0	0	NADH dehydrogenase	mitochondrion	4 iron, 4 sulfur cluster
3334		1	4.49E-05	0	0	INF	Y	ENSG00000154999	MRPS17			gi|7705425|ref|NP_	mitochondrial ribosomal prot	130	14502	9.6	0	o	Q	20	0.006	0	0.000359	0	0	-	1	8.97E-05	0.000179	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	30S ribosomal protein S17,	intracellular; membrane;	nucleic acid binding; rRNA
3335		1	4.25E-05	3	4.27E-05	0.995519	Y	ENSG00000164733	CTSB			gi|22538437|ref|NP_	cathepsin B preproprotein [H	339	37822	6.3	0	o	S	20	1	0	0	0	0	-	0	0	0	0	0	0	-	0	0.00034	0	1	8.49E-05	0.00017	0	0	0	0	0	0	0	Cathepsin B activity [pmid	intracellular [pmid 1645961];	cathepsin B activity [pmid
3336		1	3.79E-05	0	0	INF	Y	ENSG00000164258	NDUFS4			gi|4505369|ref|NP_0	NADH dehydrogenase (ubiq	175	20108	10.3	0	o	S	33	0.967	0	0	0	0.000303	-	1	7.57E-05	0.000151	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	ETC complex I subunit	membrane fraction [pmid	NADH dehydrogenase
3337		1	3.31E-05	6	0.00047	0.07042	Y	ENSG00000161203	AP2M1			gi|14917109|ref|NP_	adaptor-related protein comp	435	49655	9.5	0	o	Q	0	0	0	0	0	0	-	0	0	0	0	0	0	-	0	0.000265	0	1	6.62E-05	0.000132	0	0	0.000106	0.000876	0.000221	0.001979	0.000225	0.000353	Adaptor complexes medium	clathrin vesicle coat; coated	lipid binding; protein binding
3338		1	2.79E-05	0	0	INF	Y	ENSG00000136897	MRPL50			gi|21265096|ref|NP_	mitochondrial ribosomal prot	158	18325	7.9	0	o	Q	21	0.069	0	0	0	0.000224	-	1	5.59E-05	0.000112	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0		mitochondrion	
3339		1	2.29E-05	4	3.27E-05	0.698725	Y	ENSG00000176974	SHMT1			gi|22547186|ref|NP_	serine hydroxymethyltransfer	483	53083	7.7	0	o	Q	0	0	0	0	0	0.000183	-	1	4.57E-05	9.14E-05	0	0	-	0	0	0	0	2.66E-05	0.000141	4.6E-05	4.78E-05	0	0	0	0	0	Serine	cytosol [pmid 8505317]	glycine
3340		1	2.21E-05	7	0.001037	0.021336	Y	ENSG00000121691	CAT			gi|4557014|ref|NP_0	catalase [Homo sapiens]	527	59756	7.4	0	o	Q	0	0	0	0.000177	0	0	-	1	4.43E-05	8.85E-05	0	0	-	0	0	0	0	0.001418	0.000878	0.000826	0.001552	0.000772	0.000989	0.001863	Catalase. Catalase is an	peroxisome	catalase activity [pmid
3341		1	1.97E-05	0	0	INF	Y	ENSG00000106049	HIBADH			gi|23308751|ref|NP_	3-hydroxyisobutyrate dehydr	336	35329	8.1	0	o	S	38	0.993	0	0	0	0.000158	-	1	3.94E-05	7.89E-05	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0	NAD binding domain of 6-	mitochondrion	3-hydroxyisobutyrate
3342		1	1.96E-05	3	6.45E-05	0.304209	Y	ENSG00000128311	TST			gi|17402865|ref|NP_	thiosulfate sulfurtransferase [	297	33429	7.3	0	o	Q	18	0.026	0	0.000157	0	0	-	1	3.93E-05	7.85E-05	0	0	-	0	0	0	0	0.000244	0	5.27E-05	0.000219	0	0	0	0	0	Thiosulfate	mitochondrial matrix [pmid	thiosulfate sulfurtransferase
3343		1	1.95E-05	0	0	INF	Y	ENSG00000147853	AK3			gi|19923437|ref|NP_	adenylate kinase 3 [Homo sa	227	25565	9.2	0	o	S	20	0.657	0	0	0	0.000156	-	1	3.89E-05	7.78E-05	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0	Adenylate kinase (ADK)	mitochondrion	adenylate kinase activity;
3344		1	1.92E-05	0	0	INF	Y	ENSG00000103707	MTFMT			gi|21245130|ref|NP_	mitochondrial methionyl-tRN	304	33833	9.5	0	o	Q	32	0.001	0	0.000153	0	0	-	1	3.84E-05	7.67E-05	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0	Formyl transferase. This	mitochondrion	methionyl-tRNA
3345		1	1.91E-05	0	0	INF	Y	ENSG00000123297	TFSFM			gi|21361280|ref|NP_	Ts translation elongation fact	346	37658	7.7	0	o	Q	18	0.472	0	0	0	0.000153	-	1	3.83E-05	7.66E-05	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0	UBA/TS-N domain. This	mitochondrion [pmid 7615523]	transcriptional elongation
3346		1	1.58E-05	1	1.63E-05	0.97047	Y	ENSG00000143575	HAX1			gi|13435366|ref|NP_	HCLS1 associated protein X-	279	31621	4.9	0	o	Q	19	0.005	0	0	0	0.000127	-	1	3.17E-05	6.33E-05	0	0	-	0	0	0	0	0.00013	0	0	0	0	0	0	0		actin cytoskeleton [pmid	interleukin-1 binding [pmid
3347		1	1.23E-05	0	0	INF	Y	ENSG00000175110	MRPS22			gi|9910244|ref|NP_0	mitochondrial ribosomal prot	360	41280	7.0	0	o	S	20	0.985	0	0	0	9.81E-05	-	1	2.45E-05	4.91E-05	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0		mitochondrial ribosome [pmid	
3348		1	1.22E-05	0	0	INF	Y	ENSG00000011376	LARS2			gi|7661872|ref|NP_0	leucyl-tRNA synthetase 2, mi	903	101976	8.2	0	o	Q	22	0.094	0	0	0	9.78E-05	-	1	2.45E-05	4.89E-05	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0	This is the catalytic core	mitochondrion	ATP binding; leucine-tRNA
3349		1	1.07E-05	5	0.00021	0.051033	Y	ENSG00000117984	CTSD			gi|4503143|ref|NP_0	cathepsin D preproprotein [H	412	44552	6.5	0	o	S	21	1	0	0	0	8.57E-05	-	1	2.14E-05	4.29E-05	0	0	-	0	0	0	0	0.000114	0.000624	0.000236	0	0.00048	0.000226	Eukaryotic aspartyl	extracellular region [pmid	cathepsin D activity [pmid
3350		1	8.05E-06	0	0	INF	Y	ENSG00000196236	XPNPEP3			gi|11559925|ref|NP_	X-prolyl aminopeptidase (am	507	57034	6.8	0	o	S	23	0.604	0	0	0	0	-	0	0	0	6.44E-05	0	0	-	0	0	0	1	1.61E-05	3.22E-05	0	0	0	0	0	0	Prolidase. E.C. 3.4.13.9.		metallooxopeptidase activity;
3351		1	0.000008	1	3.86E-06	2.073002	Y	ENSG00000091483	FH			gi|19743875|ref|NP_	fumarate hydratase precurso	510	54637	8.8	0	o	S	32	0.992	0	0	0	0	-	0	0	0	0.000064	0	0	-	0	0	0	1	0.000016	0.00003	0	0	0	0	3.09E-05	0	0	Class II fumarases. This	cytoplasm [pmid 8200987];	fumarate hydratase activity