

Supplemental Table 1-KinexTM KAM-1.1 800 Antibody

Microarray analysis of pooled trachea tissue lysates from smoke exposed rats.

Averages are from duplicate measurements with the ranges shown as a percentage of the measured signal intensities of the antibody-captured captured dye-labeled proteins in the microarray spots.

%CFC ≥ 200

%CFC ≥ 100

%CFC ≥ 50

%CFC ≥ -50

500 %CFC ≥ -50

200 %CFC ≥ -75

100

50

Serial No.	Antibody Codes	Target Protein Name	Phospho Site (Human)	Full Target Protein Name	Globally Normalized - Trachea Ctrl (M)	%Error Range Trachea Ctrl (M)	Globally Normalized - Trachea Treatment (M) 75	%Error Range Trachea Treatment (M) 75	Globally Normalized - Trachea Treatment (M) 200	%Error Range Trachea Treatment (M) 200	Globally Normalized - Trachea Treatment (M) 400	%Error Range Trachea Treatment (M) 400	Globally Normalized - Trachea Ctrl (F)	%Error Range Trachea Ctrl (F)	Globally Normalized - Trachea Treatment (F) 75	%Error Range Trachea Treatment (F) 75	Globally Normalized - Trachea Treatment (F) 200	%Error Range Trachea Treatment (F) 200	Globally Normalized - Trachea Treatment (F) 400	%Error Range Trachea Treatment (F) 400	%CFC (Trachea Treatment (M) 75 from Trachea Ctrl (M))	%CFC (Trachea Treatment (M) 200 from Trachea Ctrl (M))	%CFC (Trachea Treatment (M) 400 from Trachea Ctrl (M))	%CFC (Trachea Ctrl (F) from Trachea Ctrl (M))	%CFC (Trachea Treatment (F) 200 from Trachea Ctrl (F))	%CFC (Trachea Treatment (F) 400 from Trachea Ctrl (F))	Uniprot Link		
1	NN001	14-3-3 z	Pan-specific	14-3-3 protein zeta (cross-reacts with other isoforms)	10193	31	7137	8	11201	26	4090	72	18738	85	9958	72	6993	13	6786	52	-30	10	-60	-47	-63	-64	P63104		
2	PN001	4E-BP1	S64	Eukaryotic translation initiation factor 4E binding protein 1 (PHAS1)	22392	7	19210	74	8765	6	22039	7	21101	9	22754	27	17554	43	16449	10	-14	-61	-2	-8	-17	-22	Q13541		
3	PN114	4E-BP1	T45	Eukaryotic translation initiation factor 4E binding protein 1 (PHAS1)	3657	39	3906	66	4257	8	3823	10	3352	10	4524	10	4700	23	7	17	81	-5	-78	-88	-67	Q13541			
4	PN128	4E-BP1	T69	Eukaryotic translation initiation factor 4E binding protein 1 (PHAS1)	7590	1222	2047	38	1466	24	1466	24	1752	45	1609	21	1158	28	1559	18	-73	-81	-49	-74	-10	Q13541			
5	NK001	Abi	Pan-specific	Abelson proto-oncogene-encoded protein-tyrosine kinase	8191	1	6752	5	8132	23	5496	0	6764	14	5228	18	8190	6	6820	2	-18	-1	-33	-23	21	1	P00519		
6	PN002	AcCoA carboxylase	S80	Acetyl coenzyme A carboxylase	8955	117	14175	30	11260	34	10550	27	19711	109	9724	51	13667	61	17766	11	58	26	18	-51	-31	-10	Q13085		
7	NN135-1	Acetylated Lysine	Pan-specific	Acetylated Lysine	30949	4	21768	2	29625	2	24747	3	32277	1	36716	23	28513	4	23309	21	-30	-4	-20	14	-12	-28	NA		
8	NN135-2	Acetylated Lysine	Pan-specific	Acetylated Lysine	3939	44	8162	3	2697	1	4179	52	11968	61	6049	5	4165	8	10349	75	107	-32	-2	6	-49	-65	-15	NA	
9	NK002	ADD1	Pan-specific	Activated p21cdc42Hs protein-serine kinase	13302	58	10638	7	8725	4	7384	5	9623	5	4550	43	5600	6	5655	4	-20	-34	-44	-53	-42	-41	Q07912		
10	PN003-PN004	Adducin a, g	S726, S693	Adducin alpha (ADD1)/gamma (ADD3)	1599	12	7630	35	3924	41	7308	27	9838	53	6498	34	4242	26	5811	8	36	-30	30	-34	-57	-41	P05611		
11	NN002	AIF	Pan-specific	Apoptosis inducing factor (programmed cell death protein 8) (PDCD8)	10377	14	7956	9	7111	23	5845	19	11077	22	7164	16	4847	29	5367	5	-23	-31	-44	-35	-58	-52	Q09831		
12	NN003	AK2	Pan-specific	Adenylate kinase 2	3077	95	13390	11	3820	31	11603	7	6796	46	16764	43	2826	71	9678	101	335	24	277	147	-58	42	P54919		
13	NN003	AKK	Pan-specific	Anaplastic lymphoma kinase	47313	2	16812	1	20207	1	16613	4	39234	3	12079	3	55113	2	16667	2	-64	-57	-65	-69	40	-58	Q98040		
14	NK004	ALS2CR7 (PFTAIRE2)	Pan-specific	Alzheimers lateral sclerosis 2 chromosomal region candidate gene protein-serine kinase 7	7074	176	8067	23	3015	22	3178	53	3787	84	2744	1	2587	5	48341	7	-14	-57	-45	-32	-32	27	Q98740		
15	PK002	AMPK1/2	T183	5-AMP-activated protein kinase subunit alpha 1/2	1854	33	1605	33	1364	37	2009	0	1375	14	1407	42	1364	25	-30	-32	-30	-32	-30	-32	-30	-32	Q13131		
16	NK006	ANKRD3	Pan-specific	Ankyrin repeat domain protein-serine kinase 3 (RIPK4, DIK)	11447	11	16848	28	8670	47	7048	65	17119	90	10897	14	6717	14	14360	11	-47	-24	-38	-36	-61	-16	P57078		
17	NN004	APG1	Pan-specific	Hsp 70-related heat shock protein 1 (osmotic stress protein 94) (OSP94)	8138	25	6028	10	4306	41	6417	9	11564	130	6624	79	3565	66	2848	26	27	-47	-21	-43	-69	-75	O95757		
18	NN122	APG2	Pan-specific	Hsp 70-related heat shock protein 4 (HSP70R4)	10070	7	6824	33	7605	10	6589	9	10372	10	3324	189	6241	7	3453	59	-32	-24	-35	-68	-40	-67	P49432		
19	NN121	Arrestin b1	Pan-specific	Arrestin beta 1	44935	10	31720	22	36222	21	42956	9	41690	0	28410	37	51641	1	28344	28	-29	-19	-4	-32	24	-32	P49407		
20	PN133	Arrestin b1	S412	Arrestin beta 1	44920	4	16027	10	13111	12	11674	16	25244	8	10698	2	41861	12	13734	2	-64	-71	-74	-58	-66	-46	P49407		
21	NK007	ASK1 (MAP3K5)	Pan-specific	Apoptosis signal regulating protein-serine kinase	9005	6	9286	21	6664	31	6326	25	10400	34	5117	27	5053	140	6054	5	3	-26	-30	-51	-51	-42	Q99683		
22	NK007-2	ASK1 (MAP3K5)	Pan-specific	Apoptosis signal regulating protein-serine kinase	6942	8	14190	10	6618	40	9135	73	14322	138	20594	70	4220	12	12449	23	104	-5	32	44	-71	-13	Q99683		
23	PK118	ASK1 (MAP3K5)	S1046	Apoptosis signal regulating protein-serine kinase	2130	46	3566	19	3777	22	2695	24	5765	40	2193	28	3180	16	3179	36	67	-77	27	-62	-45	-45	Q99683		
24	NN160	ATF2	Pan-specific	Activating transcription factor 2 (CRE-BP1)	1089	11	2913	59	1075	17	922	18	1445	53	1715	34	1236	22	1850	46	168	-1	-15	19	-14	28	P15336		
25	PN003-1	ATF2	T183	Activating transcription factor 2 (CRE-BP1)	2960	8	2805	4	2805	4	2805	4	2805	4	2805	4	2805	4	2805	4	-5	-39	23	-17	24	-7	P15336		
26	PN006-1	ATF2	T69/T71	Activating transcription factor 2 (CRE-BP1)	43405	1	17840	4	17428	3	18416	2	35865	25	13043	19	51189	6	15730	4	-59	-60	-56	-64	-43	-56	P15336		
27	NK008-1	Aurora A (AIK)	Pan-specific	Aurora Kinase A (serine/threonine protein kinase 6)	10188	82	20281	42	4936	191	11315	17	7515	73	24792	35	6354	15	17534	9	99	-52	11	230	-15	133	O14965		
28	NK008-2	Aurora A (AIK)	Pan-specific	Aurora Kinase A (serine/threonine protein kinase 6)	15721	252	6993	20	6729	44	4437	79	6505	14	5075	21	4072	53	4770	55	-56	-57	-72	-22	-37	-27	O14965		
29	NK193	Aurora B (AIK-1)	Pan-specific	Aurora Kinase B (serine/threonine protein kinase 12)	5487	61	27435	37	7284	24	12912	21	5432	30	7352	42	7818	78	15749	24	400	33	135	35	44	190	Q96GD4		
30	NK009	Aurora C (AIK-3)	Pan-specific	Aurora Kinase C (serine/threonine protein kinase 13)	2732	6	3181	1	2329	6	1839	1	5805	42	2893	22	1930	36	3614	52	16	-15	-33	-24	-49	-5	Q9UCB9		
31	NN100	Axl	Pan-specific	Axl proto-oncogene-encoded protein-tyrosine kinase	2180	2	2508	45	2074	43	2226	14	2363	23	1650	9	1635	53	2437	2	15	-5	2	-30	-31	3	P30530		
32	PK045-PN007	MEK1/2+B23 (NPM)	S217+S221, S4	MAPK/ERK protein-serine kinase 1/2 (MKK1/2) + B23 (nucleophosmin, numatrin, nucleolar protein NO38)	1263	18	1192	30	998	45	901	37	1062	6	1213	32	919	45	1139	32	-6	-21	-29	14	-13	7	Q07480		
33	PN008	B23 (NPM)	T199	B23 (nucleophosmin, numatrin, nucleolar protein NO38)	40668	12	21814	25	32817	23	40205	2	34185	1	28223	26	46272	0	26160	7	-46	-19	-1	-17	35	-23	P06748		
34	PN008-2	B23 (NPM)	T199	B23 (nucleophosmin, numatrin, nucleolar protein NO38)	1145	56	1811	10	974	34	1222	12	1894	24	1816	8	1478	75	1297	1	58	-15	7	-4	-22	-11	Q07480		
35	PN009	B23 (NPM)	T234/T237	B23 (nucleophosmin, numatrin, nucleolar protein NO38)	39608	1	30627	6	26422	15	39649	2	36198	6	26321	8	46778	4	45068	3	-23	-33	1	-7	-29	-11	P51913		
36	PN010	Bad	S15	Bcl2-antagonist of cell death protein	21316	6	14508	9	19080	1	38196	12	13936	9	9	53470	2	-53	40	-58	-64	-60	-40	-58	Q02934				
37	PN012-1	Bad	S99	Bcl2-antagonist of cell death protein	2207	3	3140	11	2597	37	2200	23	4044	50	4042	262	2134	20	3057	15	42	18	0	0	-47	-24	Q02934		
38	NN000	Bak	Pan-specific	Bcl2 homologous antagonist/killer (BCL2L1)	15071	6	10985	4	10273	3	9182	8	11503	0	8842	9	9820	24	9458	12	-27	-32	-39	-23	-15	-18	O16611		
39	NN005	Bax	Pan-specific	Apoptosis regulator Bcl2-associated X protein	12791	34	12062	14	16899	2	9769	1	10180	12	7464	18	11074	5	10480	10	-6	10480	10	-32	-24	-27	9	3	Q07812
40	NN006	Bcl2	Pan-specific	B-cell lymphoma protein 2 alpha	2430	16	2619	4	2293	58	2300	3	3621	20	2542	10	2404	1	2778	1	8	-6	-5	-31	-34	-23	P10415		
41	NN007	Bcl-xL	Pan-specific	Bcl2-like protein 1	31957	18	37766	6	19297	3	31160	4	33983	10	24314	51	40699	6	31874	39	18	-40	-2	-28	20	-6	Q07817		
42	NN008	Bcl-xS/L	Pan-specific	Bcl-xS/L	15900	2	17643	3	15652	8	12732	2	16722	9	10236	24	14045	5	14213	2	11	-2	-20	-39	-16	-15	Q07817		
43	NN009	Bid	Pan-specific	BH3 interacting domain death agonist	18713	65	10000	6	5305	115	7842	9	1																

117	NK029	CDK6		Pan-specific	Cyclin-dependent protein-serine kinase 6	5636	12	5480	31	5783	29	5932	36	6638	18	12052	67	13572	83	5337	33	-3	3	5	82	104	-20	Q00534	
118	NK029-2	CDK6		Pan-specific	Cyclin-dependent protein-serine kinase 6	2257	6	4883	43	2538	6	4108	122	2566	27	2407	39	2525	134	2067	5	116	12	82	-6	-2	-19	Q00534	
119	NK029-3	CDK6		Pan-specific	Cyclin-dependent protein-serine kinase 6	9627	9	17332	393	7131	32	5211	20	9186	31	6166	53	7248	28	4860	19	916	80	-26	-46	-33	-21	-47	Q00534
120	NK030-1	CDK7		Pan-specific	Cyclin-dependent protein-serine kinase 7	1041	13	1780	35	1190	112	1421	54	1076	26	1451	39	751	36	1096	15	71	14	36	35	-30	2	P50613	
121	NK030-2	CDK7		Pan-specific	Cyclin-dependent protein-serine kinase 7	11243	14	4017	52	5614	82	5446	72	8001	3	3846	54	7971	42	2529	26	-64	-50	-52	-52	0	-68	P50613	
122	NK030-3	CDK7		Pan-specific	Cyclin-dependent protein-serine kinase 7	1111	16	2327	26	1506	34	1799	111	1695	2	1943	34	943	53	1662	19	109	36	62	15	-44	-2	P50613	
123	NK031-2	CDK8		Pan-specific	Cyclin-dependent protein-serine kinase 8	4637	25	5551	119	3097	26	3056	34	4604	26	3088	1	3641	47	3634	17	20	-33	-34	-33	-23	-21	P49336	
124	NK031-3	CDK8		Pan-specific	Cyclin-dependent protein-serine kinase 8	2187	47	2636	3	1768	22	1552	2	2820	31	2159	61	1913	59	3078	17	21	-19	-29	-23	-32	9	P49336	
125	NK031-5	CDK8		Pan-specific	Cyclin-dependent protein-serine kinase 8	40824	7	10824	3	3239	26	3443	3	6241	139	5904	18	3078	17	49	-63	-46	-70	-13	-38	-7	-59	P49336	
126	NK031-4	CDK8		Pan-specific	Cyclin-dependent protein-serine kinase 8	2145	26	3118	36	1674	81	1868	18	1794	19	1229	17	1477	42	1916	19	45	-2	-12	-28	-3	-10	P50613	
127	NK032	CDK9		Pan-specific	Cyclin-dependent protein-serine kinase 9	14604	4	7315	3	10440	21	8554	54	12023	4	5561	0	7319	10	7708	17	-50	-29	-41	-54	-39	-36	P50750	
128	NK199	CDKL1		Pan-specific	Cyclin-dependent kinase-like 1	824	24	1301	6	1302	19	771	61	1192	6	749	34	1137	0	965	26	58	-6	-37	-5	-19	Q00532		
129	NK034	Chk1		Pan-specific	Checkpoint protein-serine kinase 1	13022	0	24765	4	8422	40	23215	14	16774	38	22602	30	14034	24	19230	18	90	-35	78	35	-16	15	O14757	
130	NK034-2	Chk1		Pan-specific	Checkpoint protein-serine kinase 1	10919	12	4462	16	4784	9	3089	17	10546	10	3502	48	4965	117	1625	4	-59	-66	-72	-67	-53	-85	O14757	
131	NK035	Chk2		Pan-specific	Checkpoint protein-serine kinase 2	9592	54	7521	3	7094	56	4990	86	12584	2	6006	18	2738	17	2701	25	-22	-26	-48	-52	-78	-75	O96017	
132	PK119	Chk2	T68		Checkpoint protein-serine kinase 2	1355	99	2408	33	2353	20	10504	726	8136	33	1504	15	1174	33	2026	16	78	74	675	-82	-86	-75	O96017	
133	NN025	c-IAP1		Pan-specific	Cellular inhibitor of apoptosis protein 1 (baculoviral IAP repeat-containing protein 3, apoptosis inhibitor 2 (API2))	7958	10	5691	30	4166	98	1870	9	8145	5	2926	13	3999	85	1939	41	-28	-48	-77	-64	-51	-76	Q13490	
134	NK036	CK1d		Pan-specific	Casein protein-serine kinase 1 delta	11523	13	7153	2	10542	12	6166	23	10923	0	6256	24	9450	2	6709	18	-38	-50	-9	-46	-43	-13	-39	P48730
135	NK037	CK1e		Pan-specific	Casein protein-serine kinase 1 epsilon	43461	17	32642	28	17681	2	41213	2	38395	14	34881	2	45146	18	26396	0	-25	-69	-5	-9	-18	-31	P49674	
136	NK198	CK1e		Pan-specific	Casein protein-serine kinase 1 epsilon	1244	89	1506	3	1155	53	1052	39	1604	49	4065	32	1319	15	547	4	21	-7	-15	-4	-6	18	-66	Q00143
137	NK040	CK1g2		Pan-specific	Casein protein-serine kinase 1 gamma 2	1692	56	2293	21	1592	40	1934	4	1883	8	1782	12	1229	21	1800	32	36	-6	-14	-5	-35	-4	P73888	
138	NK041	CK2a		Pan-specific	Casein protein-serine kinase 2 alpha/alpha prime	1587	94	1953	25	833	38	1239	26	1604	32	1422	40	932	20	1000	52	23	-47	-22	-11	-42	-38	P8400	
139	PN130	c-Myc	T58/S62		Myc proto-oncogene protein	3090	88	3566	128	2214	56	1471	8	4025	50	1765	36	1180	32	2075	71	15	-28	-52	-56	-71	-48	P01106	
140	NN026	Cofilin 1		Pan-specific	Cofilin 1	42449	3	28956	8	19857	10	41039	15	39494	7	38882	3	49861	9	28525	5	-32	-63	-3	-2	26	-28	P23528	
141	PN019	Cofilin 1	S3		Cofilin 1	15000	10	20232	5	11512	68	24304	6	26030	7	30122	1	13285	66	16754	4	35	-23	62	16	-49	-36	P23528	
142	PN020	Cofilin 2	S3		Cofilin 2	3706	55	4796	26	3492	16	4908	149	6777	26	6897	212	2387	15	2909	9	-29	-6	32	2	-65	-57	Q9Y281	
143	PN022-2	Cortactin	Y466		Cortactin (amplixin) (mouse)	41415	8	12591	16	17252	6	12852	4	37091	12	11399	10	47871	2	12448	9	-70	-58	-69	-69	29	-66	Q60598	
144	NK042	COT		Pan-specific	Osaka thyroid oncogene protein-serine kinase (Tfp2)	1003	61	1465	8	1169	63	1227	31	1393	5	1284	108	1020	15	1721	14	46	16	22	-8	-27	24	P41279	
145	NK042-2	COT		Pan-specific	Osaka thyroid oncogene protein-serine kinase (Tfp2)	1753	48	2676	55	1594	33	1650	34	1727	17	2082	4	1522	1	2040	5	53	-9	-6	21	-12	18	P41279	
146	NK027	COX2		Pan-specific	Cyclo-oxygenase 2 (prostaglandin G/H synthase 2 precursor)	40190	1	31546	14	21218	6	43157	14	39222	1	39450	2	54888	5	30461	14	-21	-47	7	1	40	-22	P33354	
147	NK043	CRK1B/CaMKKinase VI		Pan-specific	Src/tyrosine-protein kinase 6/Calcium kinase 1	3672	30	37234	14	22079	5	42691	16	37348	6	42691	7	49234	20	2930	10	-25	43	0	32	-25	74	P41240	
148	PN023	CREB1	S129/S133		cAMP response element binding protein 1	36515	10	21056	41	18799	3	33475	2	34808	0	21927	3	46498	0	-42	-49	-8	-16	34	-24	-24	P16220		
149	PN024	CREB1	S133		cAMP response element binding protein 1	5189	248	4537	1	3025	11	9549	17	8015	92	24918	444	3993	36	7210	50	-13	-42	84	211	-50	-10	P16220	
150	PN024-2	CREB1	S133		cAMP response element binding protein 1	1033	36	1480	28	845	23	1048	30	1388	69	1260	14	1106	6	783	131	43	-18	1	-9	-20	-44	P16220	
151	NN149	Crystallin aB		Pan-specific	Crystallin alpha B (heat-shock 20 kDa like-protein)	13315	1	8842	5	8399	7	8997	0	9367	6	7121	4	9952	15	6613	66	-34	-37	-32	-24	6	-29	P02511	
152	NN149-2	Crystallin aB		Pan-specific	Crystallin alpha B (heat-shock 20 kDa like-protein)	3920	29	5256	52	3033	4	3094	1	8715	8	3322	4	4812	63	2646	14	-34	-23	-21	-62	-45	-70	P02511	
153	NN149-3	Crystallin aB		Pan-specific	Crystallin alpha B (heat-shock 20 kDa like-protein)	5041	39	3125	26	3241	11	2506	5	6616	6	2563	24	8833	32	3130	13	-38	-36	-50	-61	-34	-53	P02511	
154	NN149-1	Crystallin aB		Pan-specific	Crystallin alpha B (heat-shock 20 kDa like-protein)	21496	49	22174	6	51597	9	43373	1	25714	25	48161	3	10959	2	37078	16	3	140	102	87	57	44	P02511	
155	PN025	Crystallin aB	S19		Crystallin alpha B (heat-shock 20 kDa like-protein)	34704	14	32739	3	21048	55	20289	8	33261	4	27527	12	38584	0	27403	7	-6	-39	-42	-17	16	-18	P02511	
156	PN110	Crystallin aB	S45		Crystallin alpha B (heat-shock 20 kDa like-protein)	31140	5	28397	1	16883	15	16384	17	25557	3	27156	2	35385	8	17468	1	-10	-46	-47	6	38	-32	P02511	
157	NK044	Csk		Pan-specific	C-terminus of Src tyrosine kinase	28479	9	40544	4	37490	19	37034	5	40651	5	37034	4	42385	21	4	-30	-44	-8	-33	14	-4	-22	P41240	
158	NK044-2	Csk		Pan-specific	C-terminus of Src tyrosine kinase	13308	12	8484	9	11892	9	6181	21	18955	19	8068	41	8109	22	5690	75	-36	-12	-54	-68	-57	-70	P41240	
159	NN028	Cyclin A		Pan-specific	Cyclin A1	19295	19	27047	7	37623	2	28594	8	15453	13	22713	2	10246	5	25553	8	40	95	48	47	-34	65	P78396	
160	NN029	Cyclin B1		Pan-specific	Cyclin B1	10597	40	6448	34	9581	17	5610	15	11147	21	3190	11	5480	2	2377	27	-39	-10	-47	-71	-51	-79	P14635	
161	NN030-1	Cyclin D1		Pan-specific	Cyclin D1 (PRAD1)	18985	22	8498	9	10646	3	8365	7	11308	2	8119	2	8988	4	6864	6	-55	-44	-56	-28	-21	-39	P24385	
162	NN030-2	Cyclin D1		Pan-specific	Cyclin D1 (PRAD1)	915	16	1595	20	1412	15	940	38	1316	94	1160	29	1112	30	1059	108	74	54	3	-12	-16	-20	P24385	
163	NN031	Cyclin E		Pan-specific	Cyclin E1	9749	23	6157	35	9794	12	5399	26	9405	4	6836	5	6500	15	4194	45	-37	0	-45	-27	-31	-55	P24864	
164	NN032	Cyclin G1		Pan-specific	Cyclin G1	8402	3	7979	89	10130	14	6286	11	7894	2	5888	25	6849	6	4406	2	-5	21	-25	-25	-16	-44	P51959	
165	NN033	CytoC		Pan-specific	Cytochrome C	8358	11	4529	49	7760	17	3329	92	6620	9	3169	21	6448	0	2885	3	-46	-6	-7	-60	-52	-3	-56	P99999
166	PN026	Dab1	Y198		Disabled homolog 1	37404	9	18371	25	36777	1	27857	21	31788	10	29723	10	43472	11	14711	16	-51	-2	-26	-4	37	-54	O75553	
167	NK210	DAPK1		Pan-specific	Death-associated protein kinase 1	1018	20	1665	43	1430	37	1470	49	1569	36	1356	31	1150	34	1138	49	66	40	-41	-14	-27	-27	P43355	
168	NK046	DAPK2		Pan-specific	Death-associated protein kinase 2	2714	31	18440	4	28673	9	27403	27	4433	58	1111	11	4258	29	4714	57	27	-10	-16	-33	-43	-24	P41240	
169	NN034	DAXX		Pan-specific	Death-associated protein 6 (BIN2C)	20714																							

248	NK069-NK070	GSK3ab		Pan-specific	Glycogen synthase-serine kinase 3 alpha/beta	16945	88	1711	20	6117	54	836	9	4778	5	1869	1	11844	776	1768	2	-90	-64	-95	-61	148	-63	P49840_P49841	
249	NK069-NK070-2	GSK3ab		Pan-specific	Glycogen synthase-serine kinase 3 alpha/beta	4522	31	3104	3	3239	9	2394	21	7147	31	3001	15	3109	8	3757	1	-31	-28	-47	-58	-57	-47	P49840_P49841	
250	PK026-PK027-1	GSK3ab		Pan-specific	Glycogen synthase-serine kinase 3 alpha/beta	1526	24	2075	28	1086	4	909	34	1527	100	1225	21	879	14	1631	26	36	-29	-40	-20	-42	7	P49840_P49841	
251	PK026-PK029-1	GSK3ab		Pan-specific	Glycogen synthase-serine kinase 3 alpha/beta	1833	45	2952	27	18656	8	29159	4	11433	28	11625	28	5171	26	7917	222	61	918	1491	2	-55	-31	P49840_P49841	
252	NK194-NK195-1	GSK3ab		Pan-specific	Glycogen synthase-serine kinase 3 alpha/beta	19526	15	27078	5	60281	1	37121	6	34012	6	52015	4	16730	11	29398	4	39	209	90	53	-54	-14	P49840_P49841	
253	NK194-NK195-3	GSK3ab		Pan-specific	Glycogen synthase-serine kinase 3 alpha/beta	1847	96	1464	13	1617	22	822	32	2690	18	1484	39	1648	20	1411	111	-21	-12	-56	-45	-39	-48	P49840_P49841	
254	NK194-NK195-4	GSK3ab		Pan-specific	Glycogen synthase-serine kinase 3 alpha/beta	2132	17	2808	10	2178	1	1701	14	5644	51	2136	21	1665	30	1875	48	-32	2	-20	-62	-70	-67	P49840_P49841	
255	NK071	Hspin		Pan-specific	Hsp70 germ cell-specific nuclear protein-serine kinase	2093	33	2627	4	2344	1	1895	39	2776	6	1602	54	2443	28	2377	5	26	12	-19	-42	-12	-14	Q81776	
256	NK081-1	Hsp23B		Pan-specific	UV1 excision repair protein RAD23 homolog B	42440	5	42440	2	41730	1	46943	10	43694	10	43694	10	43694	10	43694	3	3	4	10	15	27	31	P07472	
257	NN051	Hsp		Pan-specific	Hsp70/Hsc70 interacting protein (ST13)	17593	5	21579	6	31098	14	19137	2	22225	15	17337	1	11305	7	17157	0	23	77	9	9	-49	-23	P05052	
258	PN035	Histone H1		phospho CDK1 sites	Histone H1 phosphorylated	2680	50	4074	16	4817	54	4675	18	2898	7	2623	15	2245	37	3281	30	52	80	74	-9	-23	Q02538		
259	PN036	Histone H2A_X		S139	Histone H2A variant X	2967	8	4311	66	3172	41	2325	17	4323	23	2412	37	2808	17	2785	3	45	7	-22	-44	-35	-36	P16104	
260	PN037	Histone H2B		S14	Histone H2B	12591	5	15149	14	42203	3	19672	7	17352	12	26057	30	10672	3	15255	7	20	235	9	50	-38	-12	P33778	
261	PN038	Histone H3		S10	Histone H3.3	1813	29	2452	3	2832	24	1982	0	2949	8	2317	5	1308	36	1728	2	35	56	9	-21	-66	-41	P84243	
262	PN039	Histone H3		S28	Histone H3.3	22170	7	15266	8	11253	4	17701	72	16475	41	24869	2	12037	44	15990	45	-31	-49	-20	51	-27	-3	P84243	
263	PN100	Histone H3		T11	Histone H3.3	4985	25	6144	77	7057	28	3141	9	10853	6	3504	2	7981	22	6878	31	23	42	-37	-68	-26	-37	P84243	
264	PN101	Histone H3		T3	Histone H3.3	12616	7	32527	6	25730	69	15753	47	17135	11	13208	20	7883	14	26764	12	158	104	25	-23	-54	56	P84243	
265	PN101-2	Histone H3		T3	Histone H3.3	10951	24	13085	18	12178	49	8937	49	15995	9	3379	30	13092	39	13661	31	19	11	-18	-79	-18	-15	P84243	
266	NN052	H01		Pan-specific	Heme oxygenase 1	19670	27	16536	16	34907	4	16771	0	23286	18	20178	11	12219	16	15900	7	-15	77	-15	-13	-48	-18	P09601	
267	NN052-2	H01		Pan-specific	Heme oxygenase 1	18716	15	13464	21	16338	17	10985	17	6896	3	3010	16	4978	31	14881	3	-28	-10	-41	31	30	116	P09601	
268	NN053	H02		Pan-specific	Heme oxygenase 2	16663	9	22450	37	25232	15	17683	2	20132	1	19116	85	11256	1	19180	8	35	51	6	-5	-44	-25	P30519	
269	NK072	Hpk1		Pan-specific	Hematopoietic progenitor protein-serine kinase 1	12161	28	14174	15	9444	46	7279	1	9297	1	6240	5	8157	14	9256	1	17	-22	-40	-33	-12	0	Q82918	
270	NN054	Hsc70		Pan-specific	Heat shock 70 kDa protein 8	12114	15	8843	17	6145	34	4877	73	12721	27	5156	48	6876	25	9671	7	-27	-49	-60	-59	-46	-24	P11142	
271	NN054-2	Hsc70		Pan-specific	Heat shock 70 kDa protein 8	19838	10	18953	2	56425	0	40769	1	22922	3	48261	5	10454	23	17413	23	-4	184	106	102	-54	-24	P11142	
272	NN054-3	Hsc70		Pan-specific	Heat shock 70 kDa protein 8	15706	1	10681	27	10991	61	9934	32	9223	14	6336	51	9035	15	12252	30	-37	-30	-37	-31	5	33	P11142	
273	NN055	HSF4		Pan-specific	Heat shock transcription factor 4	38798	8	29880	67	48460	67	48654	0	30889	13	43217	1	44971	17	44374	23	-23	25	25	40	46	44	Q9ULV5	
274	NN062	Hsp105		Pan-specific	Heat shock 105 kDa protein	9746	22	13526	18	7936	2	5279	40	10344	47	4685	24	6029	17	6358	8	-39	-19	-46	-55	-42	-39	Q92598	
275	NN152-1	Hsp27		Pan-specific	Heat shock 27 kDa protein beta 1 (HspB1)	20442	23	19339	12	25455	3	17512	3	20242	12	19203	3	10006	19	16495	12	-5	25	-14	-5	-51	-19	P04792	
276	NN152	Hsp27		Pan-specific	Heat shock 27 kDa protein beta 1 (HspB1)	12017	79	13232	31	8956	2	10852	35	10487	3	6787	39	7884	43	11239	64	10	-25	-10	-35	-28	7	P04792	
277	PN061-1	Hsp27		Pan-specific	Heat shock 27 kDa protein beta 1 (HspB1)	552	71	1750	44	1940	0	1498	23	1819	5	2172	32	2013	28	217	252	209	15	19	11	11	11	P04792	
278	PN040-2	Hsp27		Pan-specific	Heat shock 27 kDa protein beta 1 (HspB1)	5134	24	5134	54	2334	10	2827	42	2879	30	3375	3	2347	7	3688	8	121	22	19	28	28	28	P07900	
279	PN041	Hsp27		Pan-specific	Heat shock 27 kDa protein beta 1 (HspB1)	15828	2	20570	20	41756	20	33103	40	18344	33	25554	115	13202	12	21264	56	58	164	109	39	-28	16	P04792	
280	PN042-1	Hsp27		Pan-specific	Heat shock 27 kDa protein beta 1 (HspB1)	30639	7	35262	29	37513	11	42295	5	24009	17	38525	6	35470	10	45684	12	15	22	38	52	48	90	P04792	
281	PN042-2	Hsp27		Pan-specific	Heat shock 27 kDa protein beta 1 (HspB1)	1327	32	1348	13	1361	2	822	7	1573	51	1686	19	1138	7	1597	81	2	3	-38	7	-28	2	P04792	
282	PN043	Hsp27		Pan-specific	Heat shock 27 kDa protein beta 1 (HspB1)	11124	92	21338	3	14252	42	33497	3	14613	37	26033	26	20587	31	25981	7	92	28	201	78	41	78	P14602	
283	NN057	Hsp40		Pan-specific	DnaJ homolog, subfamily B member 1	886	55	1673	56	1613	6	1774	112	1485	29	2188	59	793	71	2417	2	89	82	100	47	-47	63	P25685	
284	NN057-2	Hsp40		Pan-specific	DnaJ homolog, subfamily B member 1	13257	4	21799	114	34219	230	18586	28	18913	19	11905	5	8655	12	16690	38	64	158	40	-37	-54	-12	P25685	
285	NN057-3	Hsp40		Pan-specific	DnaJ homolog, subfamily B member 1	15516	2	19449	5	56611	0	35462	19	20285	8	40783	18	9121	12	14946	43	25	265	129	101	-55	-26	P25685	
286	NN058	Hsp47		Pan-specific	Heat shock 47 kDa protein (collagen-binding protein 1, colligin 1)	4705	6	5027	29	6270	3	2704	3	5344	41	4740	30	7468	54	4219	31	7	33	-43	-11	40	-21	P29043	
287	NN059-1	Hsp60		Pan-specific	Heat shock 60 kDa protein 1 (chaperonin, CPN60)	7335	26	3212	31	5222	72	4160	90	7880	36	7428	44	4799	40	5690	50	-56	-29	-43	-6	-39	-28	P10809	
288	NN059-2	Hsp60		Pan-specific	Heat shock 60 kDa protein 1 (chaperonin, CPN60)	36245	9	36245	0	35267	1	47675	12	36467	10	37365	3	37365	3	37365	3	3	3	25	43	25	4	P10809	
289	NN059-3	Hsp60		Pan-specific	Heat shock 60 kDa protein 1 (chaperonin, CPN60)	7118	5	8336	0	11098	2	6475	20	9368	3	6376	26	8451	11	8903	16	-17	66	-9	-32	1	-6	P10809	
290	NN060	Hsp70		Pan-specific	Heat shock 70 kDa protein 1	1027	32	4484	12	1480	40	1219	71	1839	29	1473	29	1578	52	2025	41	138	42	19	-20	-14	10	P08107	
291	NN060-2	Hsp70		Pan-specific	Heat shock 70 kDa protein 1	7234	33	2869	4	4229	20	2107	8	8344	43	3267	48	3678	377	2192	24	-60	-42	-71	-61	-56	-74	P08107	
292	NN060-3	Hsp70		Pan-specific	Heat shock 70 kDa protein 1	22605	10	18232	4	56909	2	32408	1	22406	22	26742	14	11173	11	15641	11	-19	152	149	19	-50	-30	P08107	
293	NN061	Hsp90		Pan-specific	Heat shock 90 kDa protein alpha/beta	11910	10	10447	6	21855	25	7915	43	21632	16	9649	10	9758	1	6181	2	-12	84	-34	-54	-55	-71	P07900	
294	NN061-10	Hsp90		Pan-specific	Heat shock 90 kDa protein alpha/beta	10316	8	14137	377	18153	66	12751	52	28038	44	8626	144	8243	12	6604	2	37	76	24	-64	-69	-71	-76	P07900
295	NN061-2	Hsp90		Pan-specific	Heat shock 90 kDa protein alpha/beta	8671	163	4597	22	6605	19	4667	19	12122	19	3103	22	9580	74	3982	10	-47	-24	-46	-74	-21	-67	P07900	
296	NN061-3	Hsp90		Pan-specific	Heat shock 90 kDa protein alpha/beta	2305	42	3927	46	4422	56	2866	5	2826	16	2440	28	4057	51	5292	33	70	92	24	-14	44	87	P07900	
297	NN061-4	Hsp90		Pan-specific	Heat shock 90 kDa protein alpha/beta	2211	8	6997	2	2827	62	4280	51	3310	26	17285	85	2592	72	5638	37	218	218	94	-42	-22	70	P07900	
298	NN061-5	Hsp90		Pan-specific	Heat shock 90 kDa protein alpha/beta	8556	3	10939	13	17629	49	17415	16	8673	103	7907	264	4947	65	8447	47	28	106	104	-22	-43	-3	P07900	
299	NN061-6	Hsp90		Pan-specific																									

379	NK090	Ksr1		Pan-specific	Protein-serine kinase suppressor of Ras 1	939	30	1374	27	738	70	520	8	1155	14	1135	10	446	73	863	39	46	-21	-45	-2	-61	-25	Q81V15	
380	NK090-2	Ksr-1		Pan-specific	Protein-serine kinase suppressor of Ras 1	9316	15	7104	19	5124	11	5671	16	9849	61	5745	27	4413	32	4979	21	-24	-45	-39	-42	-55	-49	Q81V15	
381	NP005	LAR		Pan-specific	LCA antigen-related (LAR) receptor tyrosine phosphatase	37608	5	20094	8	48933	4	41470	21	30930	0	39555	8	50793	1	45437	19	-47	30	10	28	64	47	P10586	
382	NK091	LATS1		Pan-specific	Large tumor suppressor 1 protein-serine kinase (WARTS)	4027	43	3859	20	4779	15	3205	19	4860	124	6706	47	4145	40	3207	40	-4	19	-20	32	-15	-34	O95835	
383	NK092-2	Lck		Pan-specific	Lymphocyte-specific protein-tyrosine kinase	10168	33	10620	25	7521	3	6886	4	7902	30	4940	81	7220	29	2919	30	4	-26	-40	-37	-9	-63	P06239	
384	NK092-3	Lck		Pan-specific	Lymphocyte-specific protein-tyrosine kinase	38218	5	35991	2	35510	4	35097	9	32071	8	41469	1	49779	3	43679	7	-6	-7	-8	29	55	36	P06239	
385	PK039	Lck		Pan-specific	Lymphocyte-specific protein-tyrosine kinase	21661	7	12958	5	15888	15	18841	22	19135	2	15205	11	23389	3	15825	11	-40	-27	-13	-21	22	-17	P06239	
386	PK040	Lck		Pan-specific	Lymphocyte-specific protein-tyrosine kinase	38478	4	16219	13	14916	8	11171	24	21627	18	14221	10	38303	1	17058	10	-58	-61	-71	-34	67	-21	P06239	
387	PK041	Lck		Pan-specific	Lymphocyte-specific protein-tyrosine kinase	30679	1	30679	1	30679	8	33463	2	30491	5	34433	6	40330	6	40330	5	0	-7	4	53	46	76	76	P06239
388	NK093	LMNK1		Pan-specific	LIM domain kinase 1	43500	3	44053	2	44053	13	52341	11	45032	6	26536	2	49244	38	5167	3	-1	2	-3	-1	1	-4	P53667	
389	PK042-PK118	LMNK1/2	Y507+T508, Y504+T505		LIM domain kinase 1/2	37012	1	29852	14	30496	1	31236	11	32319	11	48313	10	43807	4	28712	34	-19	-18	-18	-16	49	36	-11	P53667
390	NK094	LOK		Pan-specific	Lymphocyte-oriented protein-serine kinase	11203	66	10265	10	10265	1	17890	103	14824	46	7880	28	9388	35	9596	185	-8	-60	-47	-37	-35	O94804		
391	NK095	Lyn		Pan-specific	Yes-related protein-tyrosine kinase	8070	52	8610	18	7477	23	6213	6	12006	26	7217	2	6258	0	6668	31	7	-7	-23	-40	-48	-44	P07948	
392	PK043	Lyn		Pan-specific	Yes-related protein-tyrosine kinase	672	7	1609	7	1021	5	271	1472	1064	39	1098	2	976	13	1752	40	139	52	-60	3	-8	65	P07948	
393	NK096	MAK		Pan-specific	Male germ cell-associated protein-serine kinase	3334	15	6280	43	3674	7	3557	36	3255	0	2663	47	2320	6	3009	16	88	10	7	-18	-29	-8	P20794	
394	NK097	MAPKAPK2		Pan-specific	Mitogen-activated protein kinase-activated protein kinase 2	12164	6	10913	31	8831	19	7873	8	13171	14	11517	24	7107	2	5631	31	-10	-27	-35	-13	-46	-57	P49137	
395	PK044	MAPKAPK2	T222		Mitogen-activated protein kinase-activated protein kinase 2	4420	38	4196	17	5793	45	4915	23	8014	35	4468	32	2904	107	4516	43	-5	31	11	-44	-64	-44	P49137	
396	PN049-FN112-1	MAPKAPK2ab	T334		Mitogen-activated protein kinase-activated protein kinase 2 alpha/beta	4318	45	4411	46	2852	23	3408	16	4510	31	2770	14	2505	11	2954	8	2	-34	-21	-39	-44	-35	P49137	
397	PN049-FN112-2	MAPKAPK2ab	T334		Mitogen-activated protein kinase-activated protein kinase 2 alpha/beta	36530	3	31851	15	40115	21	40484	7	28355	11	42081	6	45172	2	47066	1	-13	10	11	48	59	66	P49137	
398	PN050-1	MARCKS	S159+S162		Myristoylated alanine-rich protein kinase C substrate	4961	116	34824	186	12211	86	29739	9	5198	38	9398	13	5511	4	6542	44	31	146	489	75	6	28	P29596	
399	NK098	MARCKS		Pan-specific	Myristoylated alanine-rich protein kinase C substrate	1730	53	4527	34	1966	129	1157	0	1741	18	3896	47	981	3	4096	77	162	14	-33	124	-44	135	Q8P0L2	
400	NK067	Me1		Pan-specific	Myeloid cell leukemia differentiation protein 1	7748	8	8077	9	6939	11	5624	9	6334	17	6700	16	5547	10	5748	4	4	-10	-27	6	-12	-9	Q07820	
401	KN155	MEF-2		Pan-specific	Myelin expression factor 2 (MYEF2)	2675	42	5661	8	6758	29	5562	7	2436	47	2701	6	3172	7	6019	10	112	153	108	11	30	147	O9P2K5	
402	NK099-1	MEK1 (MAP2K1)		Pan-specific	MAPK/ERK protein-serine kinase 1 (MKK1)	42281	4	30672	17	39616	4	43231	12	31779	7	48363	2	52311	1	42940	14	-27	-6	2	46	65	35	Q02750	
403	NK099-2	MEK1 (MAP2K1)		Pan-specific	MAPK/ERK protein-serine kinase 1 (MKK1)	1420	4	2000	2	1504	16	1030	46	1473	5	1666	114	1260	5	1068	14	41	6	-28	13	-14	-28	Q02750	
404	NK099-3	MEK1 (MAP2K1)		Pan-specific	MAPK/ERK protein-serine kinase 1 (MKK1)	1245	58	1652	16	1429	17	1450	15	1731	37	1325	17	1144	20	4709	0	33	15	16	-23	-34	172	Q02750	
405	NK099-4	MEK1 (MAP2K1)		Pan-specific	MAPK/ERK protein-serine kinase 1 (MKK1)	3196	36	5379	10	3454	12	5201	147	2726	19	4901	12	3377	42	6890	17	68	8	63	80	24	153	Q02750	
406	NK099-5	MEK1 (MAP2K1)		Pan-specific	MAPK/ERK protein-serine kinase 1 (MKK1)	1364	39	2042	17	1561	43	1231	106	3301	28	1837	28	1316	4	1396	56	50	14	-10	41	1	7	Q02750	
407	PK046-1	MEK1 (MAP2K1)	T291		MAPK/ERK protein-serine kinase 1 (MKK1)	27874	1	16183	2	12578	4	10982	27	18352	0	17619	3	36497	12	15261	4	-42	-55	-62	-4	99	-7	Q02750	
408	PK046-2	MEK1 (MAP2K1)	T291		MAPK/ERK protein-serine kinase 1 (MKK1)	41591	7	31354	23	15507	10	13102	4	34555	19	36503	5	46576	23	37051	20	0	-25	-63	-88	6	35	7	Q02750
409	PK046-3	MEK1 (MAP2K1)	T291		MAPK/ERK protein-serine kinase 1 (MKK1)	549	60	1462	69	744	81	4389	83	1150	60	549	36	2538	100	166	34	-152	84	-16	-46	121	Q02750		
410	PK047-2	MEK1 (MAP2K1)	S297		MAPK/ERK protein-serine kinase 1 (MKK1)	46480	3	31883	1	14934	1	13713	4	42381	5	56514	3	49099	0	30372	36	-31	-28	-70	-16	16	-28	Q02750	
411	PK048-1	MEK1 (MAP2K1)	T385		MAPK/ERK protein-serine kinase 1 (MKK1)	16934	17	19556	35	20526	45	33142	26	14258	18	27573	11	33078	19	26350	83	15	21	96	93	132	85	Q02750	
412	PK048-2	MEK1 (MAP2K1)	T385		MAPK/ERK protein-serine kinase 1 (MKK1)	43335	1	19063	14	13502	4	11276	17	29746	7	24207	33	46084	12	17800	20	-56	-69	-74	-19	55	-40	Q02750	
413	PK048-3	MEK1 (MAP2K1)	T385		MAPK/ERK protein-serine kinase 1 (MKK1)	869	636	1333	16	615	46	792	67	1516	134	1211	56	490	26	683	19	53	-29	-9	-20	-68	-55	Q02750	
414	NK099-6	MEK1/2		Pan-specific	MAPK/ERK protein-serine kinase 1/2 (MKK1/2)	2038	7	2188	46	1501	55	1423	90	4550	65	1864	29	1549	47	711	207	7	-26	-30	-59	-66	-84	Q02750	
415	PK049-PN007	MEK1/2+B23 (NPM)	S217+S221, S4		MAPK/ERK protein-serine kinase 1/2 (MKK1/2) + B23 (nucleophosmin, numatin, nucleolar protein NO38)	760	26	1486	6	715	14	1004	25	1611	41	1319	19	762	2	1068	76	96	-6	32	-18	-53	-34	Q02750	
416	NK100-1	MEK2 (MAP2K2)		Pan-specific	MAPK/ERK protein-serine kinase 2 (MKK2)	38825	14	33063	5	51170	12	41920	0	32108	10	46710	14	51795	9	46191	12	-16	-15	32	8	45	61	-44	P36507
417	NK100-2	MEK2 (MAP2K2)		Pan-specific	MAPK/ERK protein-serine kinase 2 (MKK2)	1741	4	2308	0	1832	40	1598	18	1711	22	1663	3	1691	2	1462	29	33	5	-8	-3	-1	-15	P36507	
418	NK100-3	MEK2 (MAP2K2)		Pan-specific	MAPK/ERK protein-serine kinase 2 (MKK2)	1652	30	2879	54	1626	15	1226	25	2384	24	1988	59	1215	11	1313	27	74	-2	-26	-17	-41	-45	P36507	
419	PK049-1	MEK2 (MAP2K2)	T394		MAPK/ERK protein-serine kinase 2 (MKK2) (human)	34624	1	34624	22	4186	22	4186	9	32840	6	32840	9	43732	9	41312	23	0	5	28	17	33	26	P36507	
420	PK049-2	MEK2 (MAP2K2)	T394		MAPK/ERK protein-serine kinase 2 (MKK2)	34409	2	36221	11	43024	3	42106	1	34334	1	34942	4	42570	0	40099	0	0	5	25	23	15	24	17	P36507
421	PK050	MEK2 (MAP2K2)	T394		MAPK/ERK protein-serine kinase 2 (MKK2) (mouse)	42992	0	34132	16	17821	11	24943	21	26396	3	21764	26	50581	0	38217	36	-3	-20	-28	-16	16	-28	Q02750	
422	NK101	MEK3 (MAP2K3)		Pan-specific	MAPK/ERK protein-serine kinase 3 (MKK3)	8102	0	8455	18	6513	6	5673	253	7266	32	4308	58	3601	10	3134	7	4	-20	-30	-41	-50	-57	P46734	
423	NK101-2	MEK3 (MAP2K3)		Pan-specific	MAPK/ERK protein-serine kinase 3 (MKK3)	5412	11	4746	42	5812	71	1882	16	6661	11	2800	24	2952	76	2681	27	3	-12	7	-65	-58	-66	-60	P46734
424	NK101-3	MEK3 (MAP2K3)		Pan-specific	MAPK/ERK protein-serine kinase 3 (MKK3)	5691	7	6962	2	9099	35	3834	0	6949	41	6226	3	6028	26	6722	73	22	60	-33	-10	-13	-3	P46734	
425	PK127	MEK3 (MAP2K3)	S218		MAPK/ERK protein-serine kinase 3 (MKK3)	2064	16	2480	17	1552	10	2856	0	3749	10	2289	73	697	11	1884	93	20	-25	-38	-39	-81	-50	P46734	
426	PK051	MEK3/6 (MAP2K3/6)	S218/S207		MAPK/ERK protein-serine kinase 3/6 (MKK3/6)	1499	66	2046	17	1399	30	779	13	1669	26	1343	8	1484	30	1223	93	37	-7	-48	-20	-11	-27	P46734	
427	PK051-2	MEK3/6 (MAP2K3/6)	S218/S207		MAPK/ERK protein-serine kinase 3/6 (MKK3/6)	46701	12	46377	7	22177	8	36578	18	35125	3	29803	2	52692	2	49305	13	-1	-53	-22	-15	50	40	P46734	
428	PK051-3	MEK3/6 (MAP2K3/6)	S218/S207		MAPK/ERK protein-serine kinase 3/6 (MKK3/6)	26170	5	31164	14	27878	23	21490	15	23296	5	25673	34	23830	6	21642	15	19	6	-18	10	2	-7	P46734	
429	NK102	MEK3/6 (MAP2K3/6)		Pan-specific	MAPK/ERK protein-serine kinase 3 beta isoform (MKK3 beta																								

510	PN057-1	p53		S392	Tumor suppressor protein p53 (antigenNY-CO-13)	4129	18	7779	9	3716	17	4382	50	6510	24	5785	34	3621	23	10601	37	88	-10	6	-11	-44	63	P04637	
511	PN057-2	p53		S392	Tumor suppressor protein p53 (antigenNY-CO-13)	20234	49	17576	56	27406	59	30573	10	21661	19	20537	15	24656	9	28053	27	-13	35	51	-5	14	30	P04637	
512	PN057-3	p53		S392	Tumor suppressor protein p53 (antigenNY-CO-13)	992	23	1459	29	765	1	914	13	1656	20	1061	20	876	39	745	69	47	-23	-8	-36	-47	-55	P04637	
513	NN123	p73	Pan-specific		Tumor suppressor protein p73	32746	7	34100	21	45885	4	27981	2	36725	8	32254	7	25318	8	31198	1	4	40	-15	-12	-31	-15	Q15350	
514	NP008	PAC1	Pan-specific		Dual specificity MAP kinase protein phosphatase	9653	8	11859	16	11994	11	7954	3	9861	12	9108	14	7969	8	10298	10	23	24	-18	-8	-19	4	Q05923	
515	NN084	PAC1	Pan-specific		Protein kinase C + casein kinase subunit in neurons protein 1	13505	2	17715	23	9270	144	15663	98	11347	6	7296	44	7737	24	19682	17	31	-31	15	-36	-32	73	Q98Y11	
516	NK122	PAK1	Pan-specific		p21-activated kinase 1 (alpha) (serine/threonine-protein kinase PAK 1)	13036	13	14563	66	15903	59	8404	3	12892	21	8673	29	7849	15	8644	7	12	22	-36	-33	-39	-33	Q13153	
517	NK122-2	PAK1	Pan-specific		p21-activated kinase 1 (alpha) (serine/threonine-protein kinase PAK 1)	880	54	1171	11	1427	20	634	83	974	16	1175	16	832	33	1352	21	33	62	-28	21	-15	39	Q13153	
518	NK122-4	PAK1	Pan-specific		p21-activated kinase 1 (alpha) (serine/threonine-protein kinase PAK 1)	745	18	6149	23	6128	13	7036	13	6128	26	6143	26	6143	26	6143	26	6143	26	-17	34	-39	-45	-12	Q13153
519	PK061	PAK1/2/3	Pan-specific	S144/S145/S154	p21-activated kinase 1/2/3 (serine/threonine-protein kinase PAK 1/2/3)	4561	27	5063	20	7016	61	3770	54	5622	19	5075	18	5300	59	3447	19	26	54	-17	-10	-4	-39	Q13153	
520	PK131	PAK1/2/3	Pan-specific	1423/402/421	p21-activated kinase 1/2/3 (serine/threonine-protein kinase PAK 1/2/3)	1784	1	3378	63	1753	41	1224	8	3287	50	1657	271	1555	22	3594	4	89	-2	-31	-50	-53	9	Q13153	
521	NK200	PAK2	Pan-specific		p21-activated kinase 2 (gamma) (serine/threonine-protein kinase PAK 2)	3383	100	1050	21	1594	37	739	30	2326	70	1240	43	1459	212	1469	2	-69	-53	-78	-47	-37	-37	Q13177	
522	NK200-2	PAK2	Pan-specific		p21-activated kinase 2 (gamma) (serine/threonine-protein kinase PAK 2)	10272	27	11871	5	8688	12	6130	9	16486	22	11004	6	9082	25	6881	33	16	-15	-40	-23	-45	-58	Q13177	
523	NK123	PAK3	Pan-specific		p21-activated kinase 3 (beta) (serine/threonine-protein kinase PAK 3)	8427	5	9150	7	8207	7	5651	6	8704	8	6665	17	8339	26	6801	1	9	-3	-33	-23	-4	-22	Q75914	
524	NK190	PAK5	Pan-specific		p21-activated kinase 5 (serine/threonine-protein kinase PAK 5)	14396	96	26521	55	17038	3	23916	6	18477	5	19447	4	29109	26	16582	16	84	18	66	5	58	-10	Q9P286	
525	NK124	PAK6	Pan-specific		p21-activated kinase 6 (serine/threonine-protein kinase PAK 6)	23704	28	32552	24	19651	7	14735	25	24715	16	15965	3	17999	10	18784	16	37	-18	-36	-35	-27	-24	Q9NOU5	
526	NN085-1	PARP1	Pan-specific		Poly (ADP-ribose) polymerase 1 (ADPRT)	4252	26	5661	31	5573	106	2637	13	7393	12	5201	69	6141	18	4388	41	33	31	-38	30	-17	-41	Q98974	
527	NN085-2	PARP1	Pan-specific		Poly (ADP-ribose) polymerase 1 (ADPRT)	19002	13	10566	5	12076	24	28111	27	10569	32	6852	51	17246	65	12006	21	-44	-36	48	-38	63	14	Q98974	
528	PN058	Pax2	Pan-specific	S394	Paired box protein 2	1730	31	2169	11	1475	4	1265	33	1746	0	2134	52	1018	100	1874	2	21	-18	-29	22	-42	7	Q02692	
529	NP086	Paxillin	Pan-specific		Paxillin	32931	12	19226	70	18516	17	32638	99	23978	9	23399	7	1650	76	17553	0	-42	-50	0	-2	-22	-25	P49023	
530	PN059	Paxillin 1	Pan-specific	Y31	Paxillin 1	27141	5	22703	74	29066	3	41219	8	24616	10	27301	5	30311	6	36251	2	-16	7	-21	11	23	47	P49023	
531	PN060-1	Paxillin 1	Pan-specific	Y118	Paxillin 1	28154	44	17572	64	31137	48	9083	201	30264	15	28623	28	36693	41	17925	55	-38	11	-68	-12	21	-41	P49023	
532	PN060-2	Paxillin 1	Pan-specific	Y118	Paxillin 1	12815	33	10772	10	12652	147	11255	50	12056	32	7800	21	6084	172	7640	54	-15	0	-11	-35	-50	-37	P49023	
533	NN087	PCNA	Pan-specific		Proliferating cell nuclear antigen	18258	19	18647	8	12492	28	14089	12	16483	7	27784	104	36895	36	34284	57	-9	-32	-23	69	124	108	P12004	
534	NK125	PCTK1 (PCTAIRE1)	Pan-specific		PCTAIRE-1 protein-tyrosine kinase	6430	102	7216	30	6273	30	10417	915	13463	210	6748	311	3965	32	7912	88	12	-2	-62	-50	-71	-41	Q00536	
535	PK063	PDGFRa	Pan-specific	Y754	Platelet-derived growth factor receptor kinase alpha	44633	4	38096	25	17550	1	21680	17	39498	18	27136	49	46530	2	37629	26	-15	-61	-51	-31	18	-5	P16234	
536	PK064-2	PDGFRa/b	Pan-specific	Y572+Y574+Y579+Y581	Platelet-derived growth factor receptor kinase alpha/beta	10672	22	10391	37	22135	63	38885	4	19894	44	23822	24	23822	51	15499	42	-47	-42	12	97	32	20	-22	P16234
537	PK065	PDGFRb	Pan-specific	Y716	Platelet-derived growth factor receptor kinase beta	11427	8	6429	47	10292	4	6480	27	17501	7	6269	51	5040	51	7651	169	-44	-10	-43	-64	-71	-56	Q96919	
538	NN141-1	PD1	Pan-specific		Protein disulfide-isomerase	18653	16	22945	18	53948	3	16685	18	20115	8	14943	6	13196	5	16372	49	24	-19	-10	-26	-34	-19	P07237	
539	NK126-1	PKA	Pan-specific		3-phosphoinositide-dependent protein-serine kinase 1	1533	29	2148	51	1463	24	1072	52	1651	34	4140	403	2014	381702	932	33	40	-5	-24	151	22	-42	Q15530	
540	PK062-1	PKA	Pan-specific		3-phosphoinositide-dependent protein-serine kinase 1	7426	28	34012	73	7388	81	34012	32	11378	14	8233	78	6174	29	13566	2	2	66	-59	-64	-29	-15	P33749	
541	PK066	PKC1	Pan-specific	S244	3-Phosphoinositide-dependent protein-serine kinase 1	1171	38	2011	42	1098	21	9443	1515	955	4	1637	3	573	32	637	71	72	-6	-206	71	-40	-33	Q15530	
542	PK061	PKC1	Pan-specific	S116	Phosphoprotein-enriched in diabetes/astrocytes 15	27566	40	10290	105	31541	0	32687	2	22591	3	16244	30	21860	21	14607	49	-63	14	18	-28	-3	-35	Q15121	
543	NN088	PERP	Pan-specific		p53-induced protein PIGPC1	38241	6	17096	15	36371	104	16554	46	26562	70	16659	2	40907	23	20232	12	-55	-5	-59	-37	64	-24	Q9H230	
544	NN089	PI3K	Pan-specific		Phosphatidylinositol 3-kinase regulatory subunit alpha	45723	2	43700	21	43386	2	47605	5	37011	7	47037	6	49402	3	55263	18	-4	-5	4	27	33	49	P27986	
545	NK191	PI3K p110 delta	Pan-specific		Phosphatidylinositol 4,5-bisphosphate 3-kinase catalytic subunit delta isoform	16816	15	40847	36	19264	18	24527	33	23500	14	25722	225	14100	3	21805	34	143	15	46	9	-40	-7	Q00329	
546	PN127	PI3K p85/p55	Pan-specific	Y467/Y199	Phosphatidylinositol 3-kinase regulatory subunit alpha	794	75	2784	70	951	19	1432	14	1093	11	2398	72	787	18	938	11	251	20	80	169	-28	-14	P27986	
547	NN114	PI3KR4	Pan-specific		Phosphoinositide 3-kinase, regulatory subunit 4	3893	34	3400	5	3327	12	2201	2	3192	9	4000	18	2342	32	3140	8	-13	-15	-43	25	-27	-2	Q99570	
548	NK192	PI4KCB	Pan-specific		phosphatidylinositol 4-kinase, catalytic, beta polypeptide	1485	11	3221	11	2227	44	3111	98	1569	4	1804	5	6303	83	13519	709	117	50	110	15	302	762	Q5VWC1	
549	NK209	PIPK2a	Pan-specific		Phosphatidylinositol 4-phosphatase 5-kinase type 2 alpha	6943	15	4859	34	9646	42	15543	666	12787	39	5401	109	6322	61	5631	207	-30	39	124	-58	-51	-56	P48426	
550	NK193	PIPK2b	Pan-specific		PI3LRRE serine/threonine-protein kinase CDC2L1	10828	368	9407	24	6827	18	7700	6	10848	20	16347	413	6	3369	55	44	-1	15	54	-4	-56	-68	P48426	
551	NK127-1	PKA Cab	Pan-specific		cAMP-dependent protein-serine kinase catalytic subunit alpha/beta	44232	8	39136	30	45689	37	45439	11	38451	10	49403	6	49556	10	45798	13	-12	3	36	36	26	26	P17612	
552	NK127-2	PKA Cab	Pan-specific		cAMP-dependent protein-serine kinase catalytic subunit alpha/beta	18581	34	13888	50	12730	1	16128	16	16226	27	13105	15	9775	3	12616	67	-31	-13	-19	-40	-22	21	P17612	
553	PK067	PKA Cab	Pan-specific	T197	cAMP-dependent protein-serine kinase catalytic subunit alpha/beta	45270	11	48323	1	20021	7	33664	8	41723	2	48038	3	53619	3	57941	1	7	-56	-26	15	29	39	P17612	
554	PK068	PKA Cb	Pan-specific	S338	cAMP-dependent protein-serine kinase catalytic subunit beta	8284	5	8567	19	3081	38	22151	150	9750	40	8351	55	7159	78	6910	21	3	-63	167	-14	-27	3	P22694	
555	NN116	PKA R1a	Pan-specific		cAMP-dependent protein-serine kinase type 1-alpha regulatory chain	13370	27	20405	943	20021	17	21937	53	17268	28	21831	71	8955	80	12456	14	53	50	64	26	-48	-28	P10644	
556	NK128	PKA R2a	Pan-specific		cAMP-dependent protein-serine kinase regulatory type 2 subunit alpha	4030	27	12673	1	11172	25	14229	78	7662	25	1139	30	5958	46	13421	34	214	177	253	-65	-22	-56	P13861	
557	PK069	PKA R2a	Pan-specific	S98	cAMP-dependent protein-serine kinase regulatory type 2 subunit alpha	5633	38	6398	11	8198	60	3020	6	7644	42	5887	11	4347	18	7213	9	14	46	-46	-23	-43	-6	P13861	
558	NK129	PKBa (Akt1)	Pan-specific		Protein-serine kinase B alpha	30942	5	31592	5	43392	3	36448	2	34619	2	33386	7	34980	9	38388	8	2	40	18	-4	1	11	P31749	
559	NK129-2	PKBa (Akt1)	Pan-specific		Protein-serine kinase B alpha	2854	189	18106	82	3549	7	10158	1107	4055	51	1021	75	1933	25	1794	22	534	24	256	75	-52	-56	P31749	
560	PK071-1	PKBa (Akt1)	Pan-specific	T308</																									

641	NP021-2	PP6C	Pan-specific	Protein-serine phosphatase 5 - catalytic subunit (PPT)	2382	39	7152	87	2914	40	8313	156	3366	24	6591	24	1915	15	3078	25	200	22	249	96	-43	-9	P53041	
642	NP022	PP6C	Pan-specific	Protein-serine phosphatase 6 - catalytic subunit (PPVC)	7755	27	16746	45	13418	41	10163	6	10271	18	10039	214	8477	19	11329	25	116	73	31	-2	-18	10	O00743	
643	NP022-2	PP6C	Pan-specific	Protein-serine phosphatase 6 - catalytic subunit (PPVC)	4486	33	17755	102	7001	43	8232	2	8146	13	11917	55	4728	41	15686	4	296	56	84	-46	-42	93	O00743	
644	PN062	PRAS40	T246	Proline-rich Akt substrate 40 kDa (Akt1S1)	33340	4	33194	7	36636	3	40090	5	29226	1	36744	13	37257	17	39268	3	0	10	20	26	27	34	Q06636	
645	NK148	PRK1 (PKN1)	Pan-specific	Protein kinase C-related protein-serine kinase 1	5251	38	7736	3	13641	296	5487	8	5749	69	1823	1	4133	38	3673	2	47	160	5	-68	-28	-36	Q16512	
646	PK095-PK096	PRK12 (PKN12)	T774, T816	Protein kinase C-related protein-serine kinase 1/2	2061	0	4990	18	2790	8	3710	186	2512	42	2227	140	1115	88	1684	1	142	35	80	-11	-56	-33	Q16512	
647	NK149	PRK2 (PKN2)	Pan-specific	Protein kinase C-related protein-serine kinase 2	6549	21	22989	25	15660	434	14344	68	16135	307	20898	53	6201	37	20857	6	251	139	119	30	-62	29	Q16513	
648	NK149-2	PRK2 (PKN2)	Pan-specific	Protein kinase C-related protein-serine kinase 2	7743	17	8443	1	7927	20	4249	20	11849	21	8887	4	5547	1	5311	13	9	2	-45	-25	-53	-55	Q16513	
649	NK150	PRKAB1	Pan-specific	5-AMP-activated protein kinase (AMPK), beta-1 regulatory subunit	41300	1	43694	4	46542	27	43353	4	3745	4	31637	52	48414	6	45935	3	6	13	5	-16	28	22	Q06124	
650	NK151	PRKWNK4	Pan-specific	Putative protein-serine kinase WNK4	60255	19	62565	19	4555	18	11059	19	6117	44	42320	16	2748	59	7660	53	115	20	-24	84	-62	-55	25	Q06102
651	PN104	Progesterone Receptor	S294	Progesterone receptor	12125	52	5749	40	19890	72	22598	149	12398	24	5529	284	18618	35	7784	1	-53	64	86	-55	50	-37	Q06401	
652	NK152	PRPK	Pan-specific	Protein-serine kinase PRP4 homolog	2596	50	9295	18	3223	8	3081	1	5496	33	7265	87	2664	24	6892	25	258	24	19	32	-52	25	Q13523	
653	NN142	PSD-95	Pan-specific	Disks large homolog 4	2129	7	4930	48	3482	1	3039	21	5817	31	7099	77	3000	22	3554	20	132	64	43	22	-48	-39	P78352	
654	NK204	PSTAIR	Pan-specific	PSTAIR	1382	1	1792	29	1761	6	1414	20	2256	0	2238	27	1314	27	1852	13	30	27	2	-1	-42	-18	NA	
655	NP023	PTEN	Pan-specific	Phosphatidylinositol-3,4,5-trisphosphate 3-phosphatase and protein phosphatase and tensin homolog deleted on chromosome 10	14855	2	21897	62	17565	39	19427	87	18137	17	6548	79	9501	22	13525	25	47	18	31	-64	-48	-25	P60484	
656	NP023-2	PTEN	Pan-specific	Phosphatidylinositol-3,4,5-trisphosphate 3-phosphatase and protein phosphatase and tensin homolog deleted on chromosome 10	1515	15	1384	29	1080	32	766	40	1303	83	2957	83	693	33	870	17	-9	-29	-49	-127	-47	-33	P60484	
657	PP003	PTEN	S380+T382+S385	Phosphatidylinositol-3,4,5-trisphosphate 3-phosphatase and protein phosphatase and tensin homolog deleted on chromosome 10	33943	1	29358	4	28212	33	37167	8	32971	5	36073	8	39322	1	40023	3	-14	-17	10	9	19	21	P60484	
658	NP024	PTP1B	Pan-specific	Protein-tyrosine phosphatase 1B	36261	4	27662	14	48285	31	44972	7	40092	19	41910	7	47527	1	39092	24	-28	33	24	5	19	-2	P18031	
659	NP025	PTP1C	Pan-specific	Protein-tyrosine phosphatase 1C (SHP1, SHPTP1)	45255	2	44024	11	45770	30	46527	4	39579	4	50464	4	52351	2	50303	2	-3	1	3	28	32	27	P29350	
660	NP026	PTP1D	Pan-specific	Protein-tyrosine phosphatase 1D (SHP2, SHPTP2, Syp, PTP2C)	41300	1	43694	4	46542	27	43353	4	3745	4	31637	52	48414	6	45935	3	6	13	5	-16	28	22	Q06124	
661	NP026-2	PTP1D	Pan-specific	Protein-tyrosine phosphatase 1D (SHP2, SHPTP2, Syp, PTP2C)	18054	2	19260	13	30390	149	28348	49	21008	33	10135	151	13215	5	16701	6	7	68	57	2	-2	-21	O61124	
662	NP036	PTPDI	Pan-specific	Protein-tyrosine phosphatase non-receptor type 21	19682	26	26076	0	17930	8	17498	3	18678	12	27457	14	14982	1	25760	50	32	-9	-11	47	-20	38	Q16825	
663	NK153	PyDK2 (PDHK2)	Pan-specific	Pyruvate dehydrogenase kinase isoform 2	4529	25	6854	57	3221	18	2425	16	2955	41	3240	19	2931	24	6043	51	251	-9	-29	-46	10	-1	104	Q15119
664	NK154	Pyk2	Pan-specific	Protein-tyrosine kinase 2	12936	8	12827	12	9746	16	8662	4	11211	4	12247	16	7354	20	8240	4	-1	-25	-49	9	-34	-26	Q14289	
665	NK154-2	Pyk2	Pan-specific	Protein-tyrosine kinase 2	40671	7	38032	5	42883	30	46059	1	32510	12	29645	54	48057	3	44516	10	-6	5	13	-9	48	37	Q14289	
666	PK097-2	Pyk2	Y579	Protein-tyrosine kinase 2	30016	1	30603	11	27561	131	36566	2	29043	20	32006	18	24004	95	32745	29	2	-8	22	10	-17	13	Q14289	
667	NN150	Rab5	Pan-specific	Ras-related protein Rab-5A	2626	11	6010	9	3347	23	2675	3	9719	169	3975	30	2031	62	3476	14	129	27	2	-59	79	-64	P20339	
668	NN150-2	Rab5	Pan-specific	Ras-related protein Rab-5A	13628	31	25983	3	60304	1	13676	1	12692	29	17963	52	12582	8	16815	24	91	343	0	42	-1	32	P20339	
669	NN092-1	Rac1	Pan-specific	Ras-related G3 botulinum toxin substrate 1	43764	1	42377	5	44809	3	45241	2	44808	9	47339	7	48952	1	46325	11	-3	2	23	25	-29	-22	Q03053	
670	NP059-2	Rac1	S71	Ras-related G3 botulinum toxin substrate 1	27630	5	26274	16	27961	25	33849	1	24908	2	22744	74	27902	6	30848	6	-5	2	3	-8	12	24	Q13548	
671	PK154	Rac1	S845	Ras-related G3 botulinum toxin substrate 1	7710	26	7710	23	42338	10	39839	4	42559	3	1091	2	883	7	8245	15	1245	3	3	-16	29	19	Q13548	
672	NK155-2	Raf1	Pan-specific	Raf1 proto-oncogene-encoded protein-serine kinase	985	2	1727	13	1256	56	855	0	2417	270	1444	31	1205	35	1073	34	75	28	-13	-40	-50	-56	P04049	
673	NK155-3	Raf1	Pan-specific	Raf1 proto-oncogene-encoded protein-serine kinase	9313	43	15003	35	11829	13	7654	5	12928	20	9852	7	14358	13	11450	23	61	27	-18	-24	11	-11	P04049	
674	NK155-4	Raf1	Pan-specific	Raf1 proto-oncogene-encoded protein-serine kinase	6963	16	8308	19	4860	2	4623	22	6422	83	5374	119	3506	17	7508	26	19	-30	-34	-16	-45	17	P04049	
675	PK098	Raf1	S259	Raf1 proto-oncogene-encoded protein-serine kinase	1402	40	4159	23	2800	33	3636	66	3121	31	2874	68	1559	56	1911	55	197	100	159	-8	-50	-39	P04049	
676	NK205	RafA (Araf)	Pan-specific	A-Raf proto-oncogene serine/threonine-protein kinase	2400	33	4582	52	3221	46	6597	40	6282	10	6329	59	2363	23	3474	1	60	34	131	1	-62	-45	P10398	
677	NK205-2	RafA (Araf)	Pan-specific	A-Raf proto-oncogene serine/threonine-protein kinase	10440	6	10992	21	8958	7	5506	20	6251	36	7510	34	8012	22	8281	8	5	-14	-47	20	-4	-32	P10398	
678	NK156	RafB (Braf)	Pan-specific	RafB proto-oncogene-encoded protein-serine kinase	8027	16	9704	6	13880	6	11505	16	9441	0	11083	0	8213	7	14559	38	21	73	43	17	-13	54	P15056	
679	NK156-2	RafB (Braf)	Pan-specific	RafB proto-oncogene-encoded protein-serine kinase	1141	10	2122	16	1738	61	1848	20	2166	18	3003	36	1127	48	3458	82	86	52	62	39	-48	60	P15056	
680	NN093	Rb	Pan-specific	Retinoblastoma-associated protein 1	45035	4	33981	23	37848	1	41131	7	36903	7	46454	4	50774	4	60142	5	-25	-16	-9	27	-39	64	P06400	
681	PK099	Rb	S71	Retinoblastoma-associated protein 1	26356	20	36190	20	36190	52	20227	30	21127	1	32182	0	27608	0	27608	0	25	0	31	92	19	42	P06400	
682	PN068	Rb	S612	Retinoblastoma-associated protein 1	46474	9	48100	5	18119	2	31524	5	31087	7	48069	1	50732	5	46425	1	3	-61	-32	55	63	-49	P06400	
683	PK097	Rb	S780	Retinoblastoma-associated protein 1	1715	11	3781	50	2824	37	2132	37	2412	20	3105	18	1693	46	6135	386	120	29	53	24	29	-30	154	P06400
684	PN068	Rb	S807	Retinoblastoma-associated protein 1	9122	34	16461	43	14881	35	19220	13	18078	26	31321	5	26183	26	41042	25	80	63	111	73	45	127	P06400	
685	PN069	Rb	S807+S811	Retinoblastoma-associated protein 1	2471	23	6935	19	4472	13	10601	54	2702	7	16220	28	2304	30	14728	8	181	81	329	500	-15	445	P06400	
686	PN070	Rb	T821	Retinoblastoma-associated protein 1	11450	8	28292	18	35681	4	37664	1	31093	5	30739	4	32967	11	30637	37	147	212	229	-1	6	-1	P06400	
687	PN071	Rb	T826	Retinoblastoma-associated protein 1	29474	8	37224	18	18577	1	17139	3	26882	11	35098	4	32320	30	41330	2	-26	-37	-42	-31	20	54	P06400	
688	PN113	Rb	S608	Retinoblastoma-associated protein 1	5827	129	3107	79	3096	27	2260	65	5776	220	8439	120	12502	75	5725	7	-47	-47	-61	46	116	-1	P06400	
689	PN131	Rb	S795	Retinoblastoma-associated protein 1	1667	20	2088	27	1659	16	1197	18	1439	4	3416	66	926	6	4110	219	25	0	-28	137	-36	185	P06400	
690	NK157	RIP2/RICK	Pan-specific	Receptor-interacting serine/threonine-protein kinase 2 (RIPK2)	42677	3	32367	35	38886	2	38504	5	36562	2	39459	4	50506	2	56955	2	-24	-9	-10	8	28	56	Q43362	
691	NK158	RIPK1	Pan-specific	Receptor-interacting serine/threonine-protein kinase 1	40555	28	42081	5	50666	7	38212	2	44461	1	40990	40	54199	2	54113	10	4	25	-6	8	22	22	Q13548	
692	PK101-1	ROCK1 (ROCK2)	Pan-specific	RhoA protein-serine kinase alpha	45672	2	48218	4	4	4	4	10	39839	4	42559	3	1091	2	883	7	8245							

772	PN090	Tau	S712	Microtubule-associated protein tau	22689	34	8851	66	32915	17	31448	13	16726	45	8416	34	32153	38	25979	25	-61	45	39	-50	92	55	P10636	
773	PN090-2	Tau	S712	Microtubule-associated protein tau	17087	81	21074	24	22134	29	28459	24	21233	15	23007	30	22979	15	7846	84	23	30	67	8	8	-63	P10636	
774	PN091	Tau	S716	Microtubule-associated protein tau	15869	70	11300	7	6670	27	26038	26	14538	41	15257	38	16205	4	6815	38	-29	-58	64	5	5	-53	P10636	
775	PN092	Tau	S720	Microtubule-associated protein tau	41918	3	38926	21	46528	0	41508	9	31771	16	45480	10	46676	2	51947	7	-7	11	-1	43	44	64	P10636	
776	PN106	Tau	S518	Microtubule-associated protein tau	2896	63	2762	5	1373	8	1971	34	2009	24	2743	17	1135	21	2721	49	-5	-53	-32	37	-44	35	P10636	
777	PN107	Tau	S738	Microtubule-associated protein tau	41324	12	23857	82	42803	13	40573	9	33115	8	31962	15	41400	7	33307	6	-42	4	-2	-3	25	1	P10636	
778	PN122	Tau	T547	Microtubule-associated protein tau	1954	1	2516	3	2128	31	10122	569	4504	20	3917	40	3276	227	2491	28	29	9	418	-13	-27	-45	P10636	
779	NK220-1	TBK1	Pan-specific	Serine/threonine-protein kinase TBK1	3697	6	14617	119	3668	15	5246	45	7688	44	8568	91	3246	2	7556	26	295	-1	42	11	-58	-2	Q9UHJ2	
780	NK220-2	TBK1	Pan-specific	Serine/threonine-protein kinase TBK1	8402	11	13605	46	8479	44	6595	5	9687	32	12808	136	2821	16	8101	19	63	1	-21	30	-71	-18	Q9UHJ2	
781	NK176	TEK (TIE2)	Pan-specific	Angiopoietin 1 receptor-tyrosine kinase	6174	148	4890	67	2599	63	4086	59	8716	49	4889	37	3106	13	4475	31	-21	-58	-34	-44	-64	-49	Q02763	
782	NK177	Trk1	Pan-specific	Tousled-like protein-serine kinase 1	4712	23	5265	51	4019	16	3812	92	3650	35	2727	11	2960	21	2521	50	12	-15	-19	-25	-19	-31	Q9UKI8	
783	NP034	TRIPb	Pan-specific	Phosphatidylinositol-3,4,5-trisphosphate 3-phosphatase TPTE2	1779	52	3279	43	2729	28	2418	279	2835	18	2172	32	1630	56	2120	42	84	53	36	-23	-43	-25	Q6XP53	
784	NN110	TRADD	Pan-specific	Tumor necrosis factor receptor type 1 associated DEATH domain protein	44026	14	42364	5	50608	9	40152	15	35601	1	46919	1	52917	7	47234	8	-4	15	-9	29	49	33	Q15628	
785	NN111	Trail	Pan-specific	Tumor necrosis factor-related apoptosis-inducing ligand	14914	23	17944	9	13087	6	11488	14	11776	5	10426	33	10930	1	14202	14	20	-12	-23	-11	-7	21	P05091	
786	NK178	TrkA	Pan-specific	Nerve growth factor (NGF) receptor-tyrosine kinase	3778	48	2328	9	4776	67	2052	26	6249	31	2198	9	2431	96	1723	42	-38	26	-46	-65	-61	-72	P04629	
787	NK179	TrkB	Pan-specific	BDNF/NT3/4/5 receptor- tyrosine kinase	16131	15	14013	36	15674	19	16654	13	11835	5	16820	44	14251	28	21473	16	-13	-3	3	42	20	81	Q16620	
788	NK180	TTK	Pan-specific	Dual specificity protein kinase	10059	13	12767	24	9677	40	6068	74	11974	28	7344	24	18018	37	7027	30	27	-4	-40	-39	50	-41	P33981	
789	NK181	Tyk2	Pan-specific	Protein-tyrosine kinase 2 (Jak-related)	7930	86	16377	15	7314	33	4713	25	10056	39	7966	7	5827	30	7402	26	107	-8	-41	-21	-42	-26	P29597	
790	NK181-2	Tyk2	Pan-specific	Protein-tyrosine kinase 2 (Jak-related)	7447	15	9027	4	3199	50	5183	47	7825	8	6390	4	4217	23	5252	7	21	-57	-30	-18	-46	-33	P29597	
791	NK183-1	Tyro10 (DDR2)	Pan-specific	Neurotrophic receptor-tyrosine kinase of discoidin domain receptor family, member 2 precursor	5343	43	4947	18	3340	7	2555	1	7655	11	3190	18	3091	22	2877	9	-7	-37	-52	-58	-60	-62	Q16832	
792	NK183-2	Tyro10 (DDR2)	Pan-specific	Neurotrophic receptor-tyrosine kinase of discoidin domain receptor family, member 2 precursor	6864	152	6932	21	10955	39	6788	189	5112	21	3958	15	9373	10	7107	53	1	60	-16	-23	83	39	Q16832	
793	PN093	Tyrosine Hydroxylase	S71	Tyrosine hydroxylase isoform a	974	101	1984	21	1380	11	860	19	1026	22	1635	32	1464	31	2199	42	104	42	-12	59	43	114	P07101	
794	PN109	Tyrosine Hydroxylase	S19	Tyrosine hydroxylase isoform a	2820	76	3834	54	4999	113	1962	70	3399	19	3501	8	2623	12	3355	17	36	77	-30	3	-23	-1	P07101	
795	NN154	Ubiquitin	Pan-specific	Ubiquitin	9007	7	20711	29	9113	7	16272	65	7506	12	12108	26	8062	16	10550	64	130	1	70	61	7	41	P62988	
796	PK110	VEGFR2 (KDR)	Y1054	Vascular endothelial growth factor receptor-tyrosine kinase 2 (Flk1)	23525	9	48070	6	14475	4	11732	1	15922	8	37633	24	16223	26	43539	18	104	-38	-50	136	2	173	P35968	
797	PK133	VEGFR2 (KDR)	Y1214	Vascular endothelial growth factor receptor-tyrosine kinase 2 (Flk1)	1113	42	1825	53	1458	41	1168	85	4414	104	1833	39	1212	47	1244	38	64	31	5	-58	-73	-72	P35968	
798	NP030	VHR	Pan-specific	Dual specificity protein phosphatase 3	44548	7	43131	5	54477	2	30596	32	38827	2	46900	2	54556	1	47898	16	-3	22	-31	21	41	23	P51452	
799	PN094	Vimentin	S33	Vimentin	3526	34	8616	12	4732	18	5906	62	6145	7	4251	51	4628	2	8086	56	144	144	34	68	-31	-25	32	P08670
800	NK184	Vrk1	Pan-specific	Vaccinia related protein-serine kinase 1	6355	27	17450	9	4031	117	14239	45	9421	77	7734	14	7789	173	7619	17	175	-37	124	-18	-17	-19	Q99986	
801	NK185	Wee1	Pan-specific	Wee1 protein-tyrosine kinase	4380	27	3794	51	4877	28	3140	68	4521	27	3925	33	2066	29	3715	62	-13	12	-28	-13	-54	-18	P30291	
802	NK037	WIP1	Pan-specific	Protein phosphatase 1D	9653	11	6950	28	8451	2	8007	47	12208	5	11875	10	8656	1	8927	30	-28	-12	-17	-3	-29	-21	Q15297	
803	NK186	Yes	Pan-specific	Yamaguchi sarcoma proto-oncogene-encoded tyrosine kinase	17386	194	21364	24	12806	30	13636	152	12988	0	29147	16	11315	86	15224	81	23	-26	-22	124	-13	17	P07947	
804	NK186-2	Yes	Pan-specific	Yamaguchi sarcoma proto-oncogene-encoded tyrosine kinase	39509	1	40225	1	48491	2	37355	39	35085	7	42910	5	48402	1	43958	5	2	23	-5	22	38	25	P07947	
805	NK214	YSK1	Pan-specific	Serine/threonine-protein kinase 25	15142	50	11388	42	15029	91	7582	12	15166	58	9999	72	5012	82	5841	23	-25	-1	-50	-34	-67	-61	O00506	
806	NK187	ZAP70	Pan-specific	Zeta-chain (TCR) associated protein-tyrosine kinase, 70 kDa	45469	4	40319	8	46507	12	39962	21	35940	4	46845	0	53987	5	50665	27	-11	2	-12	28	50	41	P43403	
807	NK187-2	ZAP70	Pan-specific	Zeta-chain (TCR) associated protein-tyrosine kinase, 70 kDa	7061	26	11615	61	6765	11	4598	20	9411	9	8047	17	2666	14	2005	36	64	-4	-35	-14	-72	-79	P43403	
808	PK112	ZAP70	Y292	Zeta-chain (TCR) associated protein-tyrosine kinase, 70 kDa	31653	11	30497	13	27141	32	20841	51	26036	10	36026	11	27094	61	31061	3	-4	-14	-34	38	4	19	P43403	
809	PK113	ZAP70	Y315+Y319	Zeta-chain (TCR) associated protein-tyrosine kinase, 70 kDa	38040	8	36552	2	44037	13	36628	19	30868	1	38183	2	46748	2	35358	27	-4	16	-4	24	51	15	P43403	
810	PK109	ZAP70/Syk	Y319/Y352	Zeta-chain (TCR) associated protein-tyrosine kinase, 70 kDa/Spleen protein-tyrosine kinase	1111	23	1129	37	1403	20	795	78	945	34	1014	17	1119	61	1259	10	2	26	-28	7	18	33	P43403	
811	NK188-1	ZIPK	Pan-specific	ZIP kinase (death associated protein-serine kinase 3 (DAPK3))	22724	51	17219	11	19449	2	10016	7	19356	3	16438	1	8084	8	15788	47	-24	-14	-56	-15	-58	-18	Q43293	
812	NK188-2	ZIPK	Pan-specific	ZIP kinase (death associated protein-serine kinase 3 (DAPK3))	23082	5	26931	42	19653	22	17613	29	24975	17	23675	10	16873	9	25183	0	17	-15	-24	-5	-32	1	Q43293	