

Phosphorylation profile of protein DUX4 in 245 Ser/Thr kinase assays; singlicate measurement

Sample protein concentration: 5 µg/50 µl

All values in cpm

#	Kinase (ProKinase Lot #)	External Vendor Lot #	Enzyme, ng/well	A			B		C	
				Activity raw values	Kinase autophos., normalized mean n=2	Kinase autophos., SD	Substrate-BG, mean n=3	Activity values, corrected (A-C)	Activity Ratio (A-C)/B	
Serine/ Threonine Kinases										
1	ACV-R1 (Lot001)		20	2273	749	23	472	1801	2.40	
2	ACV-R1B (Lot001)	INV_35826	10	1347	406	88	472	875	2.16	
3	ACV-R2A (Lot001)	INV_862446	40	1275	818	112	472	803	0.98	
4	ACV-R2B (Lot001)	INV_745099	25	1207	607	102	472	735	1.21	
5	ACV-RL1 (Lot002)	INV_511550	20	3671	953	171	472	3199	3.36	
6	AKT1 (Lot007)		25	917	317	54	472	445	1.40	
7	AKT2 (Lot003)		200	16711	9419	2834	472	16239	1.72	
8	AKT3 (Lot004)		10	962	562	172	472	490	0.87	
9	AMPK-alpha1 (Lot001)		200	1734	1441	90	472	1262	0.88	
10	ARK5 (Lot002)		100	4602	4805	424	472	4130	0.86	
11	ASK1 (Lot001)	INV_666419	2	1952	336	138	472	1480	4.41	
12	Aurora-A (Lot004)		50	2345	1313	249	472	1873	1.43	
13	Aurora-B (Lot008)		100	2378	735	79	472	1906	2.59	
14	Aurora-C (Lot009)		100	2731	690	82	472	2259	3.28	
15	BMPR1A (Lot002)	INV_834034	50	3553	955	214	472	3081	3.22	
16	B-RAF VE (Lot002)		25	559	274	7	472	87	0.32	
17	B-RAF wt (Lot001)		25	682	296	78	472	210	0.71	
18	BRSK1 (Lot001)	INV_36097	3	535	191	14	472	63	0.33	
19	BRSK2 (Lot002)	CAR_08CBS-0302	25	410	493	100	472	-62	-0.13	
20	BUB1B (Lot002)	CAR_08CBS-1281	35	716	788	102	472	244	0.31	
21	CAMK1D (Lot001)	INV_33214	100	25587	2284	317	472	25115	11.00	
22	CAMK2A (Lot001)	INV_28192	2	2462	318	90	472	1990	6.26	
23	CAMK2B (Lot001)	INV_35330	100	4160	385	93	472	3688	9.59	
24	CAMK2D (Lot001)	INV_31647	1	11392	383	8	472	10920	28.49	
25	CAMK2G (Lot001)	MIL_D8NN026U	5	8552	730	50	472	8080	11.07	
26	CAMK4 (Lot001)	INV_35391	75	21957	2573	739	472	21485	8.35	
27	CAMKK1 (Lot001)	INV_406782	30	10254	1380	252	472	9782	7.09	
28	CAMKK2 (Lot001)	INV_35319	10	2543	698	159	472	2071	2.97	
29	CDC42BPA (Lot001)	INV_36844	10	1064	176	35	472	592	3.37	
30	CDC42BPB (Lot001)		25	1162	501	83	472	690	1.38	
31	CDC7/ASK (Lot001)	CAR_10CBS-0119	10	2339	699	25	472	1867	2.67	
32	CDK1/CycA (Lot005)		15	4028	379	62	472	3556	9.38	
33	CDK1/CycE (Lot001)		50	2478	413	102	472	2006	4.86	
34	CDK1CycB1 (Lot025)		25	3442	516	81	472	2970	5.76	
35	CDK2/CycA (Lot005)		50	10923	477	60	472	10451	21.93	
36	CDK2/CycE (Lot009)		10	541	237	62	472	69	0.29	
37	CDK3/CycE (Lot001)		10	460	309	68	472	-12	-0.04	
38	CDK4/CycD1 (Lot007)		25	505	206	35	472	33	0.16	
39	CDK4/CycD3 (Lot001)		10	400	272	73	472	-72	-0.26	
40	CDK5/p25NCK (Lot001)		15	1353	373	184	472	881	2.37	
41	CDK5/p35NCK (Lot001)		15	3166	536	54	472	2694	5.03	
42	CDK6/CycD1 (Lot004)		200	793	530	147	472	321	0.61	
43	CDK6/CycD3 (Lot003)	CAR_09CBS-0622	20	1152	443	78	472	680	1.54	
44	CDK7CycH (Lot002)		50	2073	365	107	472	1601	4.38	
45	CDK8/CycC (Lot002)		50	418	189	104	472	-54	-0.29	
46	CDK9/CycK (Lot001)	INV_35774	40	1774	903	139	472	1302	1.44	
47	CDK9/CycT (Lot004)		15	2375	561	39	472	1903	3.39	
48	CHK1 (Lot002)		50	10527	3272	38	472	10055	3.07	
49	CHK2 (Lot002)	INV_31541	10	2582	306	15	472	2110	6.89	
50	CK1-alpha1 (Lot001)		100	6967	1989	13	472	6495	3.26	
51	CK1-delta (Lot001)	INV_33225	5	2053	347	22	472	1581	4.55	
52	CK1-epsilon (Lot001)	INV_31778	2.5	1293	289	100	472	821	2.84	
53	CK1-gamma1 (Lot001)	INV_34360	5	749	344	59	472	277	0.81	
54	CK1-gamma2 (Lot001)	INV_31770	10	842	388	10	472	370	0.95	
55	CK1-gamma3 (Lot001)	INV_34380	5	691	256	66	472	219	0.86	

#	Kinase (ProKinase Lot #)	External Vendor Lot #	Enzyme, ng/well	Activity raw values	A	B	C	Activity values, corrected (A-C)	Activity Ratio (A-C)/B
					Kinase autophos., normalized mean n=2	Kinase autophos., SD	Substrate-BG, mean n=3		
56	CK2-alpha1 (Lot003)		20	1257	545	70	472	785	1.44
57	CK2-alpha2 (Lot001)		50	753	370	48	472	281	0.76
58	CLK1 (Lot001)		400	9292	4276	269	472	8820	2.06
59	CLK2 (Lot001)	INV_271879	2	539	531	172	472	67	0.13
60	CLK3 (Lot002)		10	911	409	157	472	439	1.07
61	CLK4 (Lot001)	INV_34379	100	6809	6358	1092	472	6337	1.00
62	COT (Lot018)		300	5075	2388	353	472	4603	1.93
63	DAPK1 (Lot002)		40	1128	689	187	472	656	0.95
64	DAPK2 (Lot001 +CaM)	INV_32159	10	1537	236	28	472	1065	4.51
65	DAPK3 (Lot001)	INV_33763	10	853	301	59	472	381	1.27
66	DCAMKL2 (Lot001)	INV_35320	20	962	547	100	472	490	0.90
67	DMPK (Lot001)	INV_34024	80	697	1740	745	472	225	0.13
68	DNA-PK (Lot001)	INV_727478	10	10172	1024	325	472	9700	9.47
69	DYRK1A (Lot002)	INV_38993	10	1778	471	41	472	1306	2.77
70	DYRK1B (Lot001)	INV_450178	2	419	224	25	472	-53	-0.24
71	DYRK2 (Lot001)	CAR_09CBS-12498	4	1721	493	95	472	1249	2.53
72	DYRK3 (Lot001)	INV_290370	3	1279	235	54	472	807	3.44
73	DYRK4 (Lot002)	INV_37361	50	4839	1309	27	472	4367	3.34
74	EEF2K (Lot001)	INV_38185	8	46296	1651	273	472	45824	27.75
75	EIF2AK2 (Lot001)	INV_374655	10	2338	446	162	472	1866	4.19
76	EIF2AK3 (Lot001)	INV_390343Z2C	20	3185	1077	148	472	2713	2.52
77	ERK1 (Lot002)		20	832	833	457	472	360	0.43
78	ERK2 (Lot004)		10	617	267	114	472	145	0.54
79	ERK7 (Lot002)		50	2575	832	17	472	2103	2.53
80	GRK2 (Lot001)	INV_31090	50	581	293	17	472	109	0.37
81	GRK3 (Lot001)	INV_34008	10	594	205	25	472	122	0.60
82	GRK4 (Lot002)	INV_401163	5	928	322	15	472	456	1.42
83	GRK5 (Lot001)	INV_38284	5	519	228	59	472	47	0.21
84	GRK6 (Lot002)	INV_37437	15	715	338	60	472	243	0.72
85	GRK7 (Lot001)	INV_34013	5	351	253	96	472	-121	-0.48
86	GSG2 (Lot002)	INV_869949	7	1291	611	47	472	819	1.34
87	GSK3-alpha (Lot001)	INV_29135	50	4217	1081	78	472	3745	3.46
88	GSK3-beta (Lot003)		50	875	318	16	472	403	1.27
89	HIPK1 (Lot001)	INV_37497	20	1880	309	45	472	1408	4.55
90	HIPK2 (Lot001)	INV_452552	20	4312	785	122	472	3840	4.89
91	HIPK3 (Lot001)	INV_35332	20	881	177	54	472	409	2.31
92	HIPK4 (Lot001)	INV_719847	20	12755	886	185	472	12283	13.87
93	HRI (Lot001)		80	4932	1563	106	472	4460	2.85
94	IKK-alpha (Lot003)	INV_447027	50	1530	760	193	472	1058	1.39
95	IKK-beta (Lot005)		100	7259	2867	181	472	6787	2.37
96	IKK-epsilon (Lot007)		20	3593	413	15	472	3121	7.56
97	IRAK1 (Lot002)	INV_472069	20	7641	1815	633	472	7169	3.95
98	IRAK4 (Lot006)		10	5606	289	74	472	5134	17.76
99	JNK1 (Lot005)		5	426	145	24	472	-46	-0.32
100	JNK2 (Lot003)		5	541	232	51	472	69	0.30
101	JNK3 (Lot001)		5	601	197	20	472	129	0.66
102	LIMK1 (Lot001)	INV_367810	50	4213	715	56	472	3741	5.23
103	LIMK2 (Lot001)	INV_355434	150	889	364	100	472	417	1.15
104	LRRK G2019S (Lot001)	INV_513572	5	803	393	100	472	331	0.84
105	LRRK2 I2020T (Lot001)	INV_586693	50	1922	1220	119	472	1450	1.19
106	LRRK2 R1441C (Lot001)	INV_612366	50	1625	1389	142	472	1153	0.83
107	LRRK2 wt (Lot002)	INV_698199	75	2729	2978	197	472	2257	0.76
108	MAP3K1 (Lot001)		10	2614	742	21	472	2142	2.89
109	MAP3K10 (Lot001)	INV_34554	25	10130	3539	798	472	9658	2.73
110	MAP3K11 (Lot001)	INV_34029	25	3200	2123	221	472	2728	1.28
111	MAP3K7/MAP3K7IP1 (Lot001)	INV_452618	10	1786	730	137	472	1314	1.80
112	MAP3K9 (Lot002)	INV_762486	15	8955	1646	480	472	8483	5.15
113	MAP4K2 (Lot001)	INV_35217	4	1553	220	46	472	1081	4.91
114	MAP4K4 (Lot001)	INV_33761	5	9358	233	103	472	8886	38.11
115	MAP4K5 (Lot001)	INV_33456	3	2891	262	32	472	2419	9.23

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				Activity raw values	Kinase autophos., normalized mean n=2	Kinase autophos., SD	Substrate-BG, mean n=3	Activity values, corrected (A-C)		
116	MAPKAPK2 (Lot004)		10	1618	509	49	472	1146	2.25	
117	MAPKAPK3 (Lot001)		10	3046	161	49	472	2574	16.00	
118	MAPKAPK5 (Lot005)		20	573	151	34	472	101	0.67	
119	MARK1 (Lot001)	INV_503177	100	3195	1385	232	472	2723	1.97	
120	MARK2 (Lot002)		5	603	286	37	472	131	0.46	
121	MARK3 (Lot001)		100	4958	1919	16	472	4486	2.34	
122	MARK4 (Lot001)	INV_304213	5	1468	825	102	472	996	1.21	
123	MEK1 wt (Lot002)		50	994	227	19	472	522	2.30	
124	MEK2 (Lot001)	INV_32519	100	2366	948	131	472	1894	2.00	
125	MEK5 (Lot005)		100	2554	1290	42	472	2082	1.61	
126	MEKK2 (Lot003)	INV_34361	15	4863	1274	74	472	4391	3.45	
127	MEKK3 (Lot001)	INV_34560	15	5447	1188	301	472	4975	4.19	
128	MELK (Lot001)		100	507	247	62	472	35	0.14	
129	MINK1 (Lot002)		10	8625	237	47	472	8153	34.34	
130	MKK4 (Lot004)		50	1992	443	107	472	1520	3.43	
131	MKK6SDTD (Lot001)		50	860	280	49	472	388	1.38	
132	MKK7 (Lot002)		150	1281	519	109	472	809	1.56	
133	MKKN1 (Lot001)	INV_652363	15	898	530	19	472	426	0.80	
134	MKKN2 (Lot001)	INV_504229	10	2126	578	37	472	1654	2.86	
135	MLK4 (Lot002)		50	2008	811	219	472	1536	1.89	
136	MST1 (Lot002)		5	9611	553	157	472	9139	16.52	
137	MST2 (Lot003)		10	23188	565	64	472	22716	40.19	
138	MST3 (Lot001)	INV_32932	20	787	522	37	472	315	0.60	
139	MST4 (Lot001)		100	4252	1368	274	472	3780	2.76	
140	MYLK (Lot001)	INV_36152	25	1671	587	165	472	1199	2.04	
141	MYLK2 (Lot001)		2.5	526	206	60	472	54	0.26	
142	MYLK3 (Lot001)	INV_34028	50	1980	651	122	472	1508	2.32	
143	NEK1 (Lot001)	INV_35267	5	6778	624	28	472	6306	10.11	
144	NEK11 (Lot001)	INV_38163	25	1990	760	101	472	1518	2.00	
145	NEK2 (Lot002)		50	11312	3387	669	472	10840	3.20	
146	NEK3 (Lot001)	INV_34362	10	2105	439	31	472	1633	3.72	
147	NEK4 (Lot002)	INV_35817	4	1834	456	227	472	1362	2.99	
148	NEK6 (Lot001)		20	1250	419	103	472	778	1.86	
149	NEK7 (Lot002)		25	838	277	10	472	366	1.32	
150	NEK9 (Lot001)	INV_38162	2	5707	425	31	472	5235	12.33	
151	NIK (Lot003)		350	4279	2474	53	472	3807	1.54	
152	NLK (Lot002)		10	1012	576	288	472	540	0.94	
153	p38-alpha (Lot005)		10	1493	394	145	472	1021	2.59	
154	p38-beta (Lot004)		3	1423	242	119	472	951	3.93	
155	p38-delta (Lot001)		2	382	209	52	472	-90	-0.43	
156	p38-gamma (Lot001)		5	469	248	78	472	-3	-0.01	
157	PAK1 (Lot002)	INV_32881	15	955	277	136	472	483	1.74	
158	PAK2 (Lot001)		25	1505	490	394	472	1033	2.11	
159	PAK3 (Lot001)		20	2388	382	116	472	1916	5.02	
160	PAK4 (Lot004)		50	695	416	19	472	223	0.54	
161	PAK6 (Lot001)		25	473	455	65	472	1	0.00	
162	PAK7 (Lot001)		15	410	281	77	472	-62	-0.22	
163	PASK (Lot001)	INV_34883	50	8821	1422	73	472	8349	5.87	
164	PBK (Lot003)		200	5028	634	42	472	4556	7.19	
165	PCTAIRE1 (Lot004)		400	1359	791	89	472	887	1.12	
166	PDK1 (Lot002)		20	623	260	13	472	151	0.58	
167	PHKG1 (Lot001)	INV_34488	5	2902	360	76	472	2430	6.76	
168	PHKG2 (Lot001)	INV_37321	10	1195	587	43	472	723	1.23	
169	PIM1 (Lot003)		2	288	326	184	472	-184	-0.56	
170	PIM2 (Lot002)		50	754	366	118	472	282	0.77	
171	PIM3 (Lot001)	MIL_33220U	4	754	388	69	472	282	0.73	
172	PKA (Lot002)	INV_37377	5	4547	286	97	472	4075	14.27	
173	PKC-alpha (Lot005)		2.5	4533	466	268	472	4061	8.71	
174	PKC-beta1 (Lot004)		2.5	2465	302	155	472	1993	6.60	
175	PKC-beta2 (Lot003)		5	4258	182	18	472	3786	20.76	

Supplemental Table 2_final.xlsx

#	Kinase (ProKinase Lot #)	External Vendor Lot #	Enzyme, ng/well	Activity raw values	A	B	C	Activity values, corrected (A-C)	Activity Ratio (A-C)/B
					Kinase autophos., normalized mean n=2	Kinase autophos., SD	Substrate-BG, mean n=3		
176	PKC-delta (Lot004)		25	12951	1090	27	472	12479	11.45
177	PKC-epsilon (Lot006)		10	6114	263	67	472	5642	21.47
178	PKC-eta (Lot005)		10	5541	583	52	472	5069	8.69
179	PKC-gamma (Lot007)		10	1830	391	249	472	1358	3.47
180	PKC-iota (Lot006)		50	1139	548	24	472	667	1.22
181	PKC-mu (Lot004)		20	5479	514	80	472	5007	9.75
182	PKC-nu (Lot002)		50	9865	690	100	472	9393	13.61
183	PKC-theta (Lot008)		2.5	2225	239	103	472	1753	7.33
184	PKC-zeta (Lot005)		50	5473	2230	405	472	5001	2.24
185	PKC-zeta wt aa184-592 (Lot001)		10	1221	1409	74	472	749	0.53
186	PKMYT1 (Lot002)	CAR_09CBS-0180	35	688	1115	89	472	216	0.19
187	PKN3 (Lot002)	CAR_09CBS-1290	20	955	520	30	472	483	0.93
188	PLK1 (Lot013)		50	2554	689	5	472	2082	3.02
189	PLK3 (Lot001)		30	2826	462	139	472	2354	5.10
190	PRK1 (Lot004)		25	404	479	79	472	-68	-0.14
191	PRK2 (Lot001)	INV_34557	20	539	306	247	472	67	0.22
192	PRKD2 (Lot001)	INV_34015	5	4689	394	81	472	4217	10.70
193	PRKG1 (Lot001)	INV_36099	12.5	3303	140	45	472	2831	20.25
194	PRKG2 (Lot002)	INV_273926	1	1398	244	96	472	926	3.80
195	PRKX (Lot001)	INV_34283	10	1492	354	66	472	1020	2.88
196	RAF1 DYDY (Lot001)		10	472	278	59	472	0	0.00
197	RIPK2 (Lot003)		50	1136	328	44	472	664	2.03
198	RIPK5 (Lot001)	INV_38724	10	2654	802	75	472	2182	2.72
199	ROCK1 (Lot001)	INV_37178	4	1343	329	61	472	871	2.65
200	ROCK2 (Lot002)		2.5	2209	198	64	472	1737	8.78
201	RON (Lot002)	INV_390704	4	397	130	16	472	-75	-0.58
202	RPS6KA1 (Lot002)	INV_386267	10	1513	327	143	472	1041	3.18
203	RPS6KA2 (Lot001)	INV_34468	10	1980	323	83	472	1508	4.67
204	RPS6KA3 (Lot002)	INV_37397	5	1748	244	11	472	1276	5.23
205	RPS6KA4 (Lot001)	INV_34070	50	2396	714	27	472	1924	2.70
206	RPS6KA5 (Lot001)	INV_33702	25	2777	423	164	472	2305	5.45
207	RPS6KA6 (Lot001)	INV_37496	2	1001	318	63	472	529	1.66
208	S6K (Lot006)		50	495	315	118	472	23	0.07
209	S6K-beta (Lot001)	INV_34389	100	930	390	67	472	458	1.18
210	SAK (Lot003)		100	14040	1434	357	472	13568	9.46
211	SGK1 (Lot005)		50	511	313	104	472	39	0.12
212	SGK2 (Lot001)	INV_34433	20	2648	367	21	472	2176	5.93
213	SGK3 (Lot004)		50	1278	444	101	472	806	1.82
214	SIK1 aa1-350 (Lot003)		50	1039	501	54	472	567	1.13
215	SLK (Lot001)	INV_34390	25	9128	1252	11	472	8656	6.91
216	SNARK (Lot001)		200	10616	5951	350	472	10144	1.70
217	SNF1LK2 (Lot001)	INV_279613	2.5	624	221	36	472	152	0.69
218	SNK (Lot007)		50	8862	1586	144	472	8390	5.29
219	SRPK1 (Lot001)		25	1028	830	100	472	556	0.67
220	SRPK2 (Lot001)		20	805	547	76	472	333	0.61
221	STK17A (Lot001)	INV_33789	25	640	354	77	472	168	0.47
222	STK23 (Lot002)	INV_285180	25	4100	4915	215	472	3628	0.74
223	STK25 (Lot001)	INV_33163	20	3246	2018	857	472	2774	1.37
224	STK33 (Lot001)	INV_36048	50	1992	1052	94	472	1520	1.44
225	STK39 (Lot001)	CAR_08CBS-0864	50	2769	708	65	472	2297	3.24
226	TAOK2 (Lot001)	INV_622141	20	3481	558	92	472	3009	5.39
227	TAOK3 (Lot005)		50	962	503	51	472	490	0.97
228	TBK1 (Lot004)		5	6797	366	37	472	6325	17.26
229	TGFB-R1 (Lot003)		10	1049	226	59	472	577	2.56
230	TGFB-R2 (Lot001)	CAR_09CBS-0960	10	575	297	170	472	103	0.35
231	TLK1 (Lot002)		15	2479	634	162	472	2007	3.16
232	TLK2 (Lot002)		10	2878	696	45	472	2406	3.46
233	TSF1 (Lot002)		25	1327	243	38	472	855	3.52
234	TSK2 (Lot002)		25	4890	964	99	472	4418	4.59
235	TSSK1 (Lot001)	INV_31989	5	1885	301	71	472	1413	4.70

#	Kinase (ProKinase Lot #)	External Vendor Lot #	Enzyme, ng/well	A	B	C	Activity values, corrected (A-C)	Activity Ratio (A-C)/B	
				Activity raw values	Kinase autophos., normalized mean n=2	Kinase autophos., SD			Substrate-BG, mean n=3
236	TTBK1 (Lot004)	CAR_08CBS-1131	10	2838	1277	164	472	2366	1.85
237	TTBK2 (Lot002)		5	1232	444	32	472	760	1.71
238	TTK (Lot003)		100	4120	1897	373	472	3648	1.92
239	VRK1 (Lot001)	CAR_08CBS-0814	50	1607	1022	165	472	1135	1.11
240	VRK2 (Lot001)		20	1609	909	135	472	1137	1.25
241	WEE1 (Lot005)		200	1980	1596	235	472	1508	0.94
242	WNK1 (Lot001)		50	1515	722	101	472	1043	1.44
243	WNK2 (Lot001)	INV_35976	40	2084	284	76	472	1612	5.68
244	WNK3 (Lot001)	INV_36047	10	630	226	32	472	158	0.70
245	ZAK (Lot001)	INV_34603	4	2058	237	42	472	1586	6.69

	Kinase (ProKinase Lot #)	Activity raw values	Kinase autophos., normalized mean n=2	Kinase autophos., SD	Substrate-BG, mean n=3	Activity values, corrected (A-C)	Activity Ratio (A-C)/B
1	MST2 (Lot003)	23188	565	64	472	22716	40.19
2	MAP4K4 (Lot001)	9358	233	103	472	8886	38.11
3	MINK1 (Lot002)	8625	237	47	472	8153	34.34
4	CAMK2D (Lot001)	11392	383	8	472	10920	28.49
5	EEF2K (Lot001)	46296	1651	273	472	45824	27.75
6	CDK2/CycA (Lot005)	10923	477	60	472	10451	21.93
7	PKC-epsilon (Lot006)	6114	263	67	472	5642	21.47
8	PKC-beta2 (Lot003)	4258	182	18	472	3786	20.76
9	PRKG1 (Lot001)	3303	140	45	472	2831	20.25
10	IRAK4 (Lot006)	5606	289	74	472	5134	17.76
11	TBK1 (Lot004)	6797	366	37	472	6325	17.26
12	MST1 (Lot002)	9611	553	157	472	9139	16.52
13	MAPKAPK3 (Lot001)	3046	161	49	472	2574	16.00
14	PKA (Lot002)	4547	286	97	472	4075	14.27
15	HIPK4 (Lot001)	12755	886	185	472	12283	13.87
16	PKC-nu (Lot002)	9865	690	100	472	9393	13.61
17	NEK9 (Lot001)	5707	425	31	472	5235	12.33
18	PKC-delta (Lot004)	12951	1090	27	472	12479	11.45
19	CAMK2G (Lot001)	8552	730	50	472	8080	11.07
20	CAMK1D (Lot001)	25587	2284	317	472	25115	11.00
21	PRKD2 (Lot001)	4689	394	81	472	4217	10.70
22	NEK1 (Lot001)	6778	624	28	472	6306	10.11
23	PKC-mu (Lot004)	5479	514	80	472	5007	9.75
24	CAMK2B (Lot001)	4160	385	93	472	3688	9.59
25	DNA-PK (Lot001)	10172	1024	325	472	9700	9.47
26	SAK (Lot003)	14040	1434	357	472	13568	9.46
27	CDK1/CycA (Lot005)	4028	379	62	472	3556	9.38
28	MAP4K5 (Lot001)	2891	262	32	472	2419	9.23
29	ROCK2 (Lot002)	2209	198	64	472	1737	8.78
30	PKC-alpha (Lot005)	4533	466	268	472	4061	8.71
31	PKC-eta (Lot005)	5541	583	52	472	5069	8.69
32	CAMK4 (Lot001)	21957	2573	739	472	21485	8.35
33	IKK-epsilon (Lot007)	3593	413	15	472	3121	7.56
34	PKC-theta (Lot008)	2225	239	103	472	1753	7.33
35	PBK (Lot003)	5028	634	42	472	4556	7.19
36	CAMKK1 (Lot001)	10254	1380	252	472	9782	7.09
37	SLK (Lot001)	9128	1252	11	472	8656	6.91
38	CHK2 (Lot002)	2582	306	15	472	2110	6.89
39	PHKG1 (Lot001)	2902	360	76	472	2430	6.76
40	ZAK (Lot001)	2058	237	42	472	1586	6.69
41	PKC-beta1 (Lot004)	2465	302	155	472	1993	6.60
42	CAMK2A (Lot001)	2462	318	90	472	1990	6.26
43	SGK2 (Lot001)	2648	367	21	472	2176	5.93
44	PASK (Lot001)	8821	1422	73	472	8349	5.87
45	CDK1CycB1 (Lot025)	3442	516	81	472	2970	5.76
46	WNK2 (Lot001)	2084	284	76	472	1612	5.68
47	RPS6KA5 (Lot001)	2777	423	164	472	2305	5.45
48	TAOK2 (Lot001)	3481	558	92	472	3009	5.39
49	SNK (Lot007)	8862	1586	144	472	8390	5.29
50	LIMK1 (Lot001)	4213	715	56	472	3741	5.23
51	RPS6KA3 (Lot002)	1748	244	11	472	1276	5.23
52	MAP3K9 (Lot002)	8955	1646	480	472	8483	5.15
53	PLK3 (Lot001)	2826	462	139	472	2354	5.10
54	CDK5/p35NCK (Lot001)	3166	536	54	472	2694	5.03
55	PAK3 (Lot001)	2388	382	116	472	1916	5.02
56	MAP4K2 (Lot001)	1553	220	46	472	1081	4.91
57	HIPK2 (Lot001)	4312	785	122	472	3840	4.89
58	CDK1/CycE (Lot001)	2478	413	102	472	2006	4.86
59	TSSK1 (Lot001)	1885	301	71	472	1413	4.70
60	RPS6KA2 (Lot001)	1980	323	83	472	1508	4.67
61	TSK2 (Lot002)	4890	964	99	472	4418	4.59
62	CK1-delta (Lot001)	2053	347	22	472	1581	4.55
63	HIPK1 (Lot001)	1880	309	45	472	1408	4.55
64	DAPK2 (Lot001 +CaM)	1537	236	28	472	1065	4.51
65	ASK1 (Lot001)	1952	336	138	472	1480	4.41
66	CDK7CycH (Lot002)	2073	365	107	472	1601	4.38
67	MEKK3 (Lot001)	5447	1188	301	472	4975	4.19
68	EIF2AK2 (Lot001)	2338	446	162	472	1866	4.19
69	IRAK1 (Lot002)	7641	1815	633	472	7169	3.95
70	p38-beta (Lot004)	1423	242	119	472	951	3.93

71	PRKG2 (Lot002)	1398	244	96	472	926	3.80
72	NEK3 (Lot001)	2105	439	31	472	1633	3.72
73	TSF1 (Lot002)	1327	243	38	472	855	3.52
74	PKC-gamma (Lot007)	1830	391	249	472	1358	3.47
75	GSK3-alpha (Lot001)	4217	1081	78	472	3745	3.46
76	TLK2 (Lot002)	2878	696	45	472	2406	3.46
77	MEKK2 (Lot003)	4863	1274	74	472	4391	3.45
78	DYRK3 (Lot001)	1279	235	54	472	807	3.44
79	MKK4 (Lot004)	1992	443	107	472	1520	3.43
80	CDK9/CycT (Lot004)	2375	561	39	472	1903	3.39
81	CDC42BPA (Lot001)	1064	176	35	472	592	3.37
82	ACV-RL1 (Lot002)	3671	953	171	472	3199	3.36
83	DYRK4 (Lot002)	4839	1309	27	472	4367	3.34
84	Aurora-C (Lot009)	2731	690	82	472	2259	3.28
85	CK1-alpha1 (Lot001)	6967	1989	13	472	6495	3.26
86	STK39 (Lot001)	2769	708	65	472	2297	3.24
87	BMPR1A (Lot002)	3553	955	214	472	3081	3.22
88	NEK2 (Lot002)	11312	3387	669	472	10840	3.20
89	RPS6KA1 (Lot002)	1513	327	143	472	1041	3.18
90	TLK1 (Lot002)	2479	634	162	472	2007	3.16
91	CHK1 (Lot002)	10527	3272	38	472	10055	3.07
92	PLK1 (Lot013)	2554	689	5	472	2082	3.02