

List A							
Wild type Kinases							
1	ABL1	104	EPHA1	207	MKK4	310	SGK3/SGKL
2	ABL2/ARG	105	EPHA2	208	MKK6	311	SIK1
3	ACK1	106	EPHA3	209	MKK7	312	SIK2
4	AKT1	107	EPHA4	210	MLCK/MYLK	313	SIK3
5	AKT2	108	EPHA5	211	MLCK2/MYLK2	314	SLK/STK2
6	AKT3	109	EPHA6	212	MLK1/MAP3K9	315	SNARK/NUAK2
7	ALK	110	EPHA7	213	MLK2/MAP3K10	316	SNRK
8	ALK1/ACVRL1	111	EPHA8	214	MLK3/MAP3K11	317	SRMS
9	ALK2/ACVR1	112	EPHB1	215	MLK4	318	SRPK1
10	ALK3/BMPR1A	113	EPHB2	216	MNK1	319	SRPK2
11	ALK4/ACVR1B	114	EPHB3	217	MNK2	320	SSTK/TSSK6
12	ALK5/TGFBR1	115	EPHB4	218	MRCKa/CDC42BPA	321	STK16
13	ALK6/BMPR1B	116	ERBB2/HER2	219	MRCKb/CDC42BPB	322	STK21/CIT
14	ARAF	117	ERBB4/HER4	220	MSK1/RPS6KA5	323	STK22D/TSSK1
15	ARK5/NUAK1	118	ERK1/MAPK3	221	MSK2/RPS6KA4	324	STK25/YSK1
16	ASK1/MAP3K5	119	ERK2/MAPK1	222	MSSK1/STK23	325	STK32B/YANK2
17	Aurora A	120	ERK5/MAPK7	223	MST1/STK4	326	STK32C/YANK3
18	Aurora B	121	ERK7/MAPK15	224	MST2/STK3	327	STK33
19	Aurora C	122	ERN1/IRE1	225	MST3/STK24	328	STK38/NDR1
20	AXL	123	ERN2/IRE2	226	MST4	329	STK38L/NDR2
21	BLK	124	FAK/PTK2	227	MUSK	330	STK39/STLK3
22	BMPR2	125	FER	228	MYLK3	331	SYK
23	BMX/ETK	126	FES/FPS	229	MYLK4	332	TAK1
24	BRAF	127	FGFR1	230	MYO3A	333	TAOK1
25	BRK	128	FGFR2	231	MYO3B	334	TAOK2
26	BRSK1	129	FGFR3	232	NEK1	335	TAOK3/JIK
27	BRSK2	130	FGFR4	233	NEK2	336	TBK1
28	BTK	131	FGR	234	NEK3	337	TEC
29	CAMK1a	132	FLT1/VEGFR1	235	NEK4	338	TESK1
30	CAMK1b	133	FLT3	236	NEK5	339	TESK2
31	CAMK1d	134	FLT4/VEGFR3	237	NEK6	340	TGFB2
32	CAMK1g	135	FMS	238	NEK7	341	TIE2/TEK
33	CAMK2a	136	FRK/PTK5	239	NEK9	342	TLK1
34	CAMK2b	137	FYN	240	NEK11	343	TLK2
35	CAMK2d	138	GCK/MAP4K2	241	NIM1	344	TNIK
36	CAMK2g	139	GLK/MAP4K3	242	NLK	345	TNK1
37	CAMK4	140	GRK1	243	OSR1/OXSR1	346	TRKA
38	CAMKK1	141	GRK2	244	P38a/MAPK14	347	TRKB
39	CAMKK2	142	GRK3	245	P38b/MAPK11	348	TRCK
40	CDC7/DBF4	143	GRK4	246	P38d/MAPK13	349	TSSK2
41	CDK1/cyclin A	144	GRK5	247	P38g/MAPK12	350	TSSK3/STK22C
42	CDK1/cyclin B	145	GRK6	248	p70S6K/RPS6KB1	351	TTBK1
43	CDK1/cyclin E	146	GRK7	249	p70S6Kb/RPS6KB2	352	TTBK2
44	CDK2/cyclin A1	147	GSK3a	250	PAK1	353	TXK
45	CDK2/cyclin A	148	GSK3b	251	PAK2	354	TYK1/LTK
46	CDK2/cyclin E	149	Haspin	252	PAK3	355	TYK2
47	CDK2/cyclin E2	150	HCK	253	PAK4	356	TYRO3/SKY
48	CDK2/cyclin O	151	HGK/MAP4K4	254	PAK5	357	ULK1
49	CDK3/cyclin E	152	HIPK1	255	PAK6	358	ULK2
50	CDK3/cyclin E2	153	HIPK2	256	PASK	359	ULK3
51	CDK4/cyclin D1	154	HIPK3	257	PBK/TOPOK	360	VRK1
52	CDK4/cyclin D3	155	HIPK4	258	PDGFRa	361	VRK2
53	CDK5/p25	156	HPK1/MAP4K1	259	PDGFRb	362	WEE1
54	CDK5/p35	157	IGF1R	260	PDK1/PDPK1	363	WNK1
55	CDK6/cyclin D1	158	IKKa/CHUK	261	PHKq1	364	WNK2
56	CDK6/cyclin D3	159	IKKb/IKBKB	262	PHKq2	365	WNK3
57	CDK7/cyclin H	160	IKKe/IKBKE	263	PIM1	366	YES/YES1
58	CDK8/cyclin C	161	IR	264	PIM2	367	YSK4/MAP3K19
59	CDK9/cyclin K	162	IRAK1	265	PIM3	368	ZAK/MLTK
60	CDK9/cyclin T1	163	IRAK4	266	PKA	369	ZAP70
61	CDK9/cyclin T2	164	IRR/INSRR	267	PKAcb	370	ZIPK/DAPK3
62	CDK14 (PFTK1)/cyclin Y	165	ITK	268	PKAcg	371	AMPK(A1/B1/G1)
63	CDK16/cyclin Y	166	JAK1	269	PKCa	372	AMPK(A1/B1/G2)
64	CDK17/cyclin Y (PCTK2)	167	JAK2	270	PKCb1	373	AMPK(A1/B1/G3)
65	CDK18/cyclin Y	168	JAK3	271	PKCb2	374	AMPK(A1/B2/G1)
66	CDK19/cyclin C	169	JNK1	272	PKCd	375	AMPK(A1/B2/G2)
67	CHK1	170	JNK2	273	PKCepsilon	376	AMPK(A1/B2/G3)
68	CHK2	171	JNK3	274	PKCeta	377	AMPK(A2/B1/G1)
69	CK1a1	172	KDR/VEGFR2	275	PKCg	378	AMPK(A2/B1/G2)
70	CK1a1L	173	KHS/MAP4K5	276	PKCiota	379	AMPK(A2/B1/G3)
71	CK1d	174	KSR1	277	PKCmu/PRKD1	380	AMPK(A2/B2/G1)
72	CK1epsilon	175	KSR2	278	PKCnu/PRKD3	381	AMPK(A2/B2/G2)
73	CK1g1	176	LATS1	279	PKCtheta	382	AMPK(A2/B2/G3)
74	CK1g2	177	LATS2	280	PKCzeta	383	DNA-PK
75	CK1g3	178	LCK	281	PKD2/PRKD2	384	EEF2K
76	CK2a	179	LCK2/ICK	282	PKG1a	385	E1F2AK1/HRI
77	CK2a2	180	LIMK1	283	PKG1b	386	E1F2AK2
78	c-Kit	181	LIMK2	284	PKG2/PRKG2	387	E1F2AK3/PERK
79	CLK1	182	LKB1	285	PKN1/PRK1	388	E1F2AK4/GCN2
80	CLK2	183	LOK/STK10	286	PKN2/PRK2	389	mTOR/FRAP1
81	CLK3	184	LRRK2	287	PKN3/PRK3	390	PDK1/PDHK1
82	CLK4	185	LYN	288	PLK1	391	PDK2/PDHK2
83	c-MER	186	LYN B	289	PLK2	392	PDK3/PDHK3
84	c-MET	187	MAK	290	PLK3	393	PDK4/PDHK4
85	COT1/MAP3K8	188	MAPKAPK2	291	PLK4/SAK	394	TRPM7/CHAK1
86	CSK	189	MAPKAPK3	292	PRKX		
87	c-Src	190	MAPKAPK5/PRAK	293	PYK2		
88	CTK/MATK	191	MARK1	294	RAF1		
89	DAPK1	192	MARK2/PAR-1Ba	295	RET		
90	DAPK2	193	MARK3	296	RIPK2		
91	DCAMKL1	194	MARK4	297	RIPK4		
92	DCAMKL2	195	MAST3	298	RIPK5		
93	DDR1	196	MASTL	299	ROCK1		
94	DDR2	197	MEK1	300	ROCK2		
95	DMPK	198	MEK2	301	RON/MST1R		
96	DMPK2/CDC42BPG	199	MEK3	302	ROS/ROS1		
97	DRAK1/STK17A	200	MEK5	303	RSK1		
98	DYRK1/DYRK1A	201	MEK1	304	RSK2		
99	DYRK1B	202	MEK2	305	RSK3		
100	DYRK2	203	MEK3	306	RSK4		

List B					
Mutant Kinases					
1	ABL1 (E255K)	90	c-MET (G1163R)	179	FGFR4 (N535K)
2	ABL1 (E255V)	91	c-MET (H1094L)	180	FGFR4 (V550E)
3	ABL1 (F317I)	92	c-MET (H1094Y)	181	FGFR4 (V550L)
4	ABL1 (F317L)	93	c-MET (K1244R)	182	FGFR4 (V550M)
5	ABL1 (G250E)	94	c-MET (L1195F)	183	FLT3 (D835Y)
6	ABL1 (H396P)	95	c-MET (M1250I)	184	FLT3 (ITD)
7	ABL1 (M351T)	96	c-MET (M1250T)	185	FLT3 (ITD)-NPOS
8	ABL1 (Q252H)	97	c-MET (P991S)	186	FLT3 (ITD)-W51
9	ABL1 (T315I)	98	c-MET (T992I)	187	FLT3 (F594_R595insR)
10	ABL1 (V299L)	99	c-MET (T1173I)	188	FLT3 (F594_R595insREY)
11	ABL1 (Y253F)	100	c-MET (V1092I)	189	FLT3 (R595_E595insEY)
12	ABL1 (Y253H)	101	c-MET (Y1230A)	190	FLT3 (Y591_V592insVDFREYEYD)
13	AKT1 (E17K)	102	c-MET (Y1230C)	191	FYN (Y531F)
14	AKT2 (E17K)	103	c-MET (Y1230D)	192	JAK2 (V617F)
15	AKT3 (E17K)	104	c-MET (Y1230H)	193	KSR1 (A635F)
16	AKT3 (G171R)	105	c-MET (Y1230S)	194	KSR1 (L639F)
17	ALK (C1156Y)	106	c-MET (Y1235D)	195	KSR2 (R676S)
18	ALK (L1152R)	107	c-MET-KIF5B (Kex24Mex14)	196	LRRK2 (G2019S)
19	ALK (L1196M)	108	c-MET-TFG (Tex5Mex15)	197	LRRK2 (I2020T)
20	ALK (F1174L)	109	c-Src (T341M)	198	LRRK2 (R1441C)
21	ALK (F1174L)-NPM1	110	DDR2 (N456S)	199	MEK1 (P124L)
22	ALK (F1174S)	111	DDR2 (T654M)	200	MELK (T460M)
23	ALK (G1202R)	112	EGFR (A763_Y764insFHEA)	201	p38a (T106M)
24	ALK (G1269A)	113	EGFR (A763_Y764insFOEA)	202	PDGFRa (D842V)
25	ALK (G1269S)	114	EGFR (C775S/T790M/L858R)	203	PDGFRa (T674I)
26	ALK (R1275Q)	115	EGFR (C797A)	204	PDGFRa-FIP1L1
27	ALK (S1206R)	116	EGFR (C797S)	205	PDGFRa (V561D)
28	ALK (T1151M)	117	EGFR (C797S/L858R)	206	PDGFRb-TPM3
29	ALK (T1151-L1152insT)	118	EGFR (d746)	207	PKD2 (G870E)
30	ALK (F1174L)-EML4	119	EGFR (d746-750)	208	PKMzeta
31	ALK-KIF5B (Kex24Aex20)	120	EGFR (d746-750/C775S/T790M/L858R)	209	PKN1-TECR (Tex1Pex10)
32	ALK-KLC1 (Kex8Aex20)	121	EGFR (d746-750/C797A)	210	RET (A883F)
33	ALK-NPM1	122	EGFR (d746-750/C797S)	211	RET (E762Q)
34	ALK-TFG	123	EGFR (d746-750/T790M)	212	RET (G691S)
35	ALK-TFG (Tex4Aex20)	124	EGFR (d746-750/T790M/C797S)	213	RET (L790F)
36	ALK-TPM1	125	EGFR (d747-749)	214	RET (M918T)
37	ALK-TPM3	126	EGFR (d747-749/A750P)	215	RET (R749T)
38	ALK2 (Q207D)	127	EGFR (d747-752/P753S)	216	RET (R813Q)
39	ALK2 (R206H)	128	EGFR (d752-759)	217	RET (R912P)
40	Aurora B (G160L)	129	EGFR (D761Y)	218	RET (S891A)
41	AXL (R499C)	130	EGFR (D770GY)	219	RET (S904F)
42	BRAF (d485-489/P490Y)	131	EGFR (D770_N771insNPG)	220	RET (S904A)
43	BRAF (G464V)	132	EGFR (D770_N771insNPG/T790M)	221	RET (V778I)
44	BRAF (G469A)	133	EGFR (G719C)	222	RET (V804E)
45	BRAF (K601E)	134	EGFR (G719D)	223	RET (V804L)
46	BRAF (L597V)	135	EGFR (G719S)	224	RET (V804M)
47	BRAF (T599_V600insT)	136	EGFR (K716A)	225	RET (Y791F)
48	BRAF (V599E)	137	EGFR (K716A/C797S/L858R)	226	RET (Y806H)
49	BRAF (V600A)	138	EGFR (K716Q/L718Q)	227	RET-BCR
50	BRAF (V600D)	139	EGFR (K728A)	228	RET-CCDC6 (PTC1)
51	BRAF (V600K)	140	EGFR (L718Q)	229	RET-KIF5B (Kex15Rex14)
52	BRAF (R506_K507insVLR)	141	EGFR (L747S)	230	RET (V804L)-KIF5B
53	BRAF-FAM131B (Fex2Bex9)	142	EGFR (L792F)	231	RET (V804M)-KIF5B
54	BRAF-KIAA1549 (Kex15Bex9)	143	EGFR (L792F/L858R)	232	RET-PRKAR1A (PTC2)
55	BRAF-KIAA1549 (Kex16Bex9)	144	EGFR (L792H/C797S/L858R)	233	RET-NCOA4 (PTC3)
56	BRAF-SRGAP3 (Sex12Bex9)	145	EGFR (L858R)	234	ROS1 (G2032R)
57	BTk (C481S)	146	EGFR (L861Q)	235	ROS1-GOPC
58	BTk (E41K)	147	EGFR (T790M)	236	ROSI-TPM3
59	BTk (P190K)	148	EGFR (T790M/C797S)	237	RSK2 (I416V)
60	CHK2 (I157T)	149	EGFR (T790M/C797S/L858R)	238	RSK2 (L608F)
61	CK1epsilon (R178C)	150	EGFR (T790M/L858R)	239	TIE2 (A1124V)
62	c-Kit (d557-558)	151	EGFR (T790M/L792F/L858R)	240	TIE2 (P883A)
63	c-Kit (A829P)	152	EGFR (T790M/L792H/L858R)	241	TIE2 (R849W)
64	c-Kit (D816E)	153	EGFR (T790M/L792F/C797S/L858R)	242	TIE2 (Y897C)
65	c-Kit (D816F)	154	EGFR (T790M/L792H/C797S/L858R)	243	TIE2 (Y897S)
66	c-Kit (D816H)	155	ERBB2 (D769H)	244	TIE2 (Y1108F)
67	c-Kit (D816I)	156	ERBB2 (D769Y)	245	TRKA (A608D)
68	c-Kit (D816V)	157	ERBB2 (P780_Y781insGSP)	246	TRKA (F589L)
69	c-Kit (D816Y)	158	ERBB2 (P1170A)	247	TRKA (G595R)
70	c-Kit (D820E)	159	ERBB2 (R896C)	248	TRKA (G595R/A608D)
71	c-Kit (D820Y)	160	ERBB2 (V777L)	249	TRKA (G595R/L657M)
72	c-Kit (T670I)	161	ERBB2 (V777_G778insCG)	250	TRKA (G595R/G667A)
73	c-Kit (V559A)	162	FGFR1 (V561M)	251	TRKA (G595R/G667C)
74	c-Kit (V559D)	163	FGFR1OP-FGFR1	252	TRKA (G595R/G667S)
75	c-Kit (V559D/V654A)	164	FGFR2 (C491A)	253	TRKA (G667C)
76	c-Kit (V559D/T670I)	165	FGFR2 (C491F)	254	TRKA (G667S)
77	c-Kit (V560G)	166	FGFR2 (C491S)	255	TRKA (L657M)
78	c-Kit (V560G/D816V)	167	FGFR2 (E565G)	256	TRKA-TFG (TRK-T3)
79	c-Kit (V560G/N822K)	168	FGFR2 (K526E)	257	TRKA-TPM3
80	c-Kit (V654A)	169	FGFR2 (K641R)	258	TRKA-TPR
81	c-Kit (Y823D)	170	FGFR2 (K659N)	259	TRKC (G623E)
82	c-MER (A708S)	171	FGFR2 (N549H)	260	TRKC (G623R)
83	c-MET (D1228A)	172	FGFR2 (R612T)	261	TRKC (G623R/L686M)
84	c-MET (D1228G)	173	FGFR2 (V564F)	262	TRKC (G696A)
85	c-MET (D1228H)	174	FGFR3 (V555M)	263	TRKC (L686M)
86	c-MET (D1228N)	175	FGFR3 (G697C)	264	YES1 (T348I)
87	c-MET (D1228V)	176	FGFR3 (K650E)	265	ZAP70 (Y319F)
88	c-MET (D1228Y)	177	FGFR3 (K650M)		
89	c-MET (F1200I)	178	FGFR3 (K650Q)		

List C			List D	
Lipid Kinases			Special Kinase	
1	PI3K (p110a(E542K)/p85a)	11	PI4K2A	1 TTK
2	PI3K (p110a(E545K)/p85a)	12	PI4Ka	
3	PI3K (p110a(H1047R)/p85a)	13	PI4Kb	
4	PI3K (p110a/p65a)	14	PIP5K1A	
5	PI3Ka (p110a/p85a)	15	PIP5K1C	
6	PI3Kb (p110b/p85a)	16	SPHK1	
7	PI3Kd (p110d/p85a)	17	SPHK2	
8	PI3Kq (p120q)			