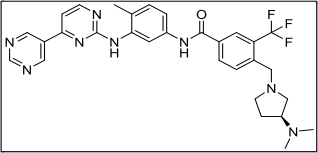
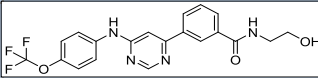
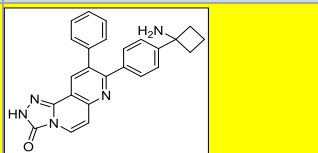
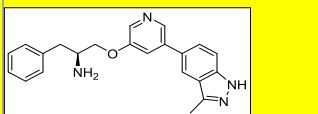
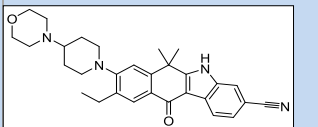
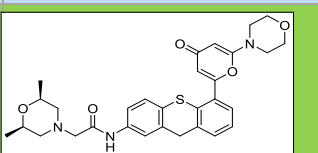
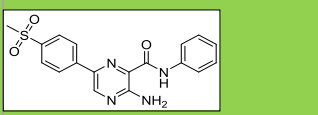
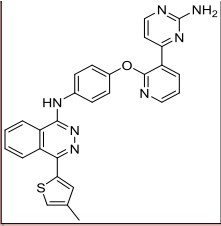
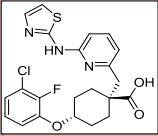
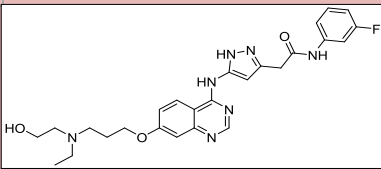
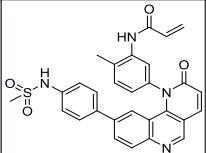
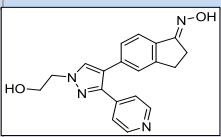
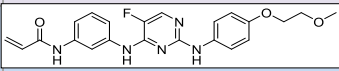
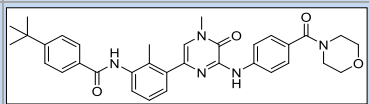
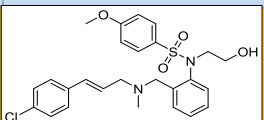
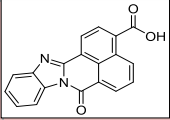
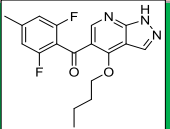
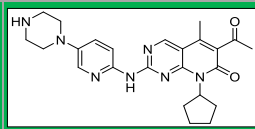
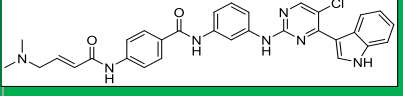
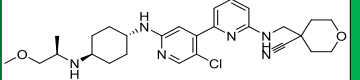
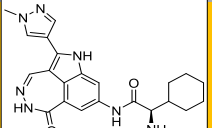
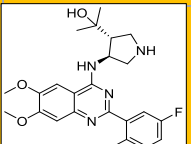
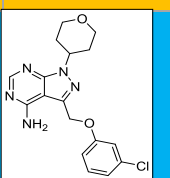
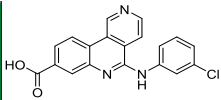
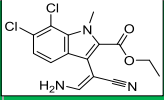
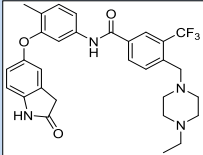
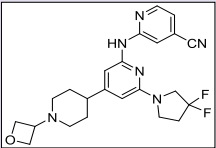
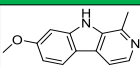
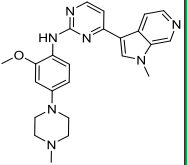
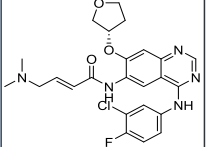
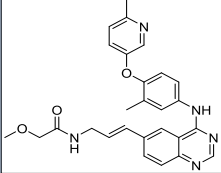
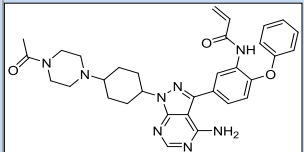
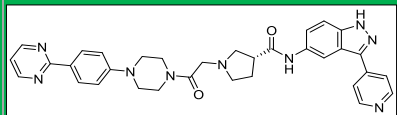
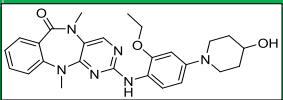
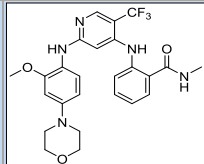
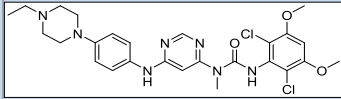
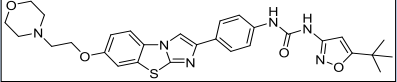
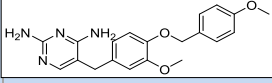
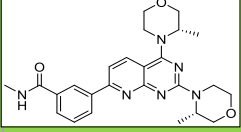


Kinase name	Kinase family	Tool compound	structure	SMILES	IC50/Ki	known off targets	other compounds	Reference	Stage of development	Commercial source	Comments/Notes	CAS number
ABL	TK	Bafetinib		<chem>O=C(NC1=C(C=C(C)C)NC2=NC=CC(C3=CN=CN=C3)=N2)=C1)C4=CC=C(CN5C[C@@H](N(C)C)CC5)C(C(F)(F)F)=C4</chem>	5.8 nM	Lyn	imatinib, nilotinib	Blood. 2005, 106(12):3948-54.	Phase II	Selleck Chemicals		859212-16-1
ABL	TK	GNF-5		<chem>O=C(NCCO)C1=CC=CC(C2=NC=NC(NC3=CC=C(C(OC(F)(F)F)C=C3)C)C=C2)=C1</chem>	220 nM		GNF-2	Nature. 2010, 463(7280):501-6.	Preclinical	EMD millipore, Selleck Chemicals, Sigma-Aldrich, Tocris	allosteric, bind to myristate-binding site	778277-15-9
AKT	AGC	MK2206		<chem>NC1(CCC1)C1=CC=C(C=C1)C1=NC2=C(C=C1)C1=CC=CC=C2C1=CC=CC=C1N1C=CC=C1N1C=CC=C1</chem>	Akt1: 8 nM; Akt2: 12 nM; Akt3: 65 nM		GSK690693 (ATP-competitive)	Mol Cancer Ther. 2010, 9(7):1956-67.	phase II	Selleck Chemicals, Cayman Chemical, Santa Cruz Biotechnology	allosteric	1032349-93-1, 1032350-13-2 (HCl salt)
AKT1	AGC	A-674563		<chem>N[C@@H](C1=CC=C(C=C1)C1=CC=CC=C1)COC2=CC(C3=CC4=C(C=NN=C4C)C=C3)=CN=C2</chem>	AKT1: 11 nM(Ki)	PKA, CDK2		Mol Cancer Ther. 2005, 4(6): 977-986	preclinical	Selleck Chemicals,		552325-73-2
ALK	TK	CH5424802		<chem>N#CC1=CC2=C(C=C1)C3=C(C(C)C)C(C4=CC(N5CCC(N6CCOCC6)CC5)=C(C)C)C=C4C3=O)N2</chem>	1.9 nM	GAK, LTK	LDK378, AP26113, ASP3026, crizotinib, TAE684	Cancer Cell. 2011, 19(5):679-90.	Phase III	Selleck Chemicals		1256580-46-7
ATM	Atypical	KU-60019		<chem>CC1CN(CC(=O)N)C2=CC3=C(C(SC4=C(C=CC=C4C3)C3=CC(=O)C=C(O3)N3CCOC3)C=C2)CC(C)O1</chem>	6.3 nM	PI3K (p110β/p85α), PI3K (p120γ), and PI3K (p110δ/p85α)	KU-55933, CP-466722	Mol Cancer Ther. 2009, 8(10):2894-902.	preclinical	Selleck Chemicals, Santa Cruz Biotechnology, Tocris		925701-49-1
ATR	Atypical	VE-821		<chem>CS(=O)(=O)C1=CC=C(C=C1)C1=CC=C(C=C1)N1C(=O)N(C(=O)N1C1=CC=CC=C1)C=CC=C1</chem>	13 nM (Ki)		AZ20	Nat Chem Biol. 2011, 7(7):428-30.	preclinical	Selleck Chemicals, Medchem Express, axon Medchem		1232410-49-9

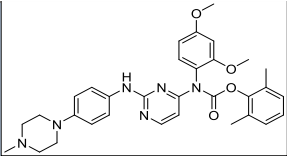
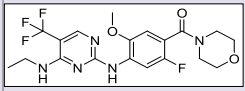
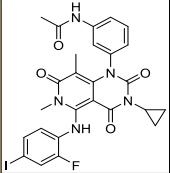
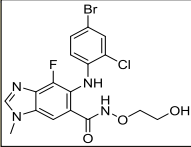
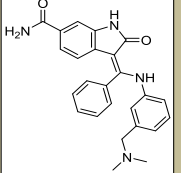
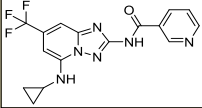
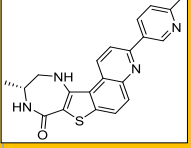
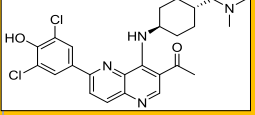
Aur	Other	AMG-900		<chem>CC1=CSC(C2=NN=C(NC3=CC=C(OC4=NC=CC=C4)5=NC(N)=NC=C5)C=C3)C6=C2C=CC=C6)=C1</chem>	AurA: 5 nM; AurB: 4 nM; AurC: 1 nM;	p38α, DDR1, DDR2, LTK	VX-680, AT9283, SNS-314	Cancer Res. 2010, 70(23):9846-54.	Phase I	Selleck Chemicals		945595-80-2
AurA	Other	MK-5108		<chem>O=C([C@@H]1(CC2=NC(NC3=NC=CS3)=CC=C2)CC[C@@H](OC4=C(C=CC(Cl)=C4)F)CC1)O</chem>	AurA: 0.064 nM; AurB: 14.1 nM; AurC: 12.1 nM;	TrkA	MLN8054	Mol Cancer Ther. 2010, 9(1):157-66.	Phase I	Selleck Chemicals		1010085-13-8
AurB	Other	AZD1152		<chem>O=C(NC1=C(C=CC(F)=C1)CC2=NNC(NC3=C4C=CC(OCCCN(C)C)C4)C(O)=CC4=NC=N3)=C2</chem>	AurA: 1368 nM; AurB: 0.37 nM			Blood. 2007, 110(6):2034-40.	Phase III	Selleck Chemicals		722544-51-6
BMX	TK	BMX-IN-1		<chem>O=C(N1C2=C(C(NC(C=C)O)=C(C)C=C2)C=CC3=C1C(C=C(C4=CC=C(N(S(=O)(=O)C)O)C=C4)C=C5)=C5N=C3</chem>	8 nM	BTK		ACS Chem Biol. 2013, 8(7):1423-8	Preclinical	EMD millipore	covalent	1431525-23-3
BRAF	TKL	GDC-0879		<chem>OCCN1N=C(C2=CC=NC=C2)C(C3=CC4=C(C(C)C)C=C4)N(O)C=C3)=C1</chem>	0.19 nM	RAF1	SB590885	Nat Biotechnol. 2011, 29(11):1046-51.	Preclinical	Selleck Chemicals, Tocris, Santa Cruz Biotechnology		905281-76-7
BTK	TK	AVL-292		<chem>C=CC(NC1=C(C=CC(NC2=NC(C)C=CC2)C=CC3=C1C(=O)C=C3)N=C2)C=C</chem>	<0.5 nM	BMX, ITK, TEC, TXK	ibrutinib	J Pharmacol Exp Ther. 2013, 346(2):219-28.	Phase I	Selleck Chemicals	covalent	1202757-89-8
BTK	TK	CGI1746		<chem>O=C(NC1=C(C=CC(C)N=C1)C2=CC=CC(C)C2N(C)C(=O)C3=CC=C(C)C3)C=C</chem>	1.9 nM			Nat Chem Biol. 2011, 7(1):41-50.	Preclinical	Selleck Chemicals, Axon Medchem	allosteric, bind to SH3 domain	910232-84-7
CaMK2	CAMK	KN-93		<chem>O=S(C1=CC=C(C(OC)C=C1)N(C2=CC=CC=C2CN(C(C=C)C)C=C(C)C)C(CO)=O</chem>	370 nM (Ki)		KN-62, Scios 15b, SMP-114		preclinical	EMD, Selleck Chemicals, Sigma-Aldrich, Tocris	allosteric	1188890-40-5, 1188890-41-6 (phosphate salt)

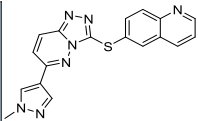
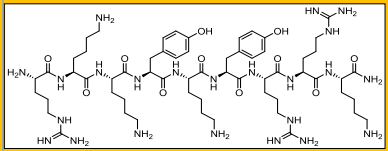
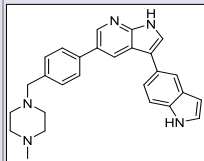
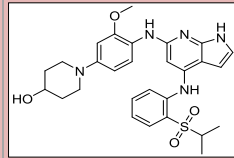
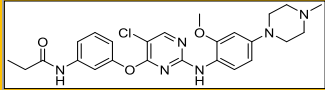
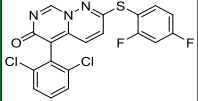
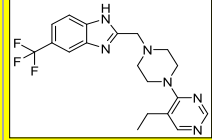
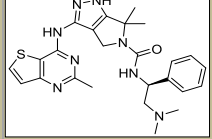
CaMKK1/2	Other	STO609		<chem>O=C(C1=C2C3=C(C4=NC5=CC=CC=C5N4C(C3=CC=C2)O)C=C1)O</chem>	CaMKK1: 140 nM; CaMKK2: 40 nM			J Biol Chem. 2002, 277(18):15813-8.	Preclinical	Santa Cruz Biotechnology, Sigma-Aldrich, Tocris, abcam, Cayman chemicals		52029-86-4
CDK1/2	CMGC	BMS-265246		<chem>O=C(R1=CN=C(NN=C2)C2=C1OCCCC)C3=C(F)C=C(C)C=C3F</chem>	CDK1: 6 nM; CDK2: 9 nM	CDK4	R-547	Mol Cancer Ther. 2011, 10(2):242-54.	preclinical	Selleck, Santa Cruz Biotechnology, Medchem Express		582315-72-8
CDK4/6	CMGC	PD0332991		<chem>O=C1C(C(C)=O)=C(C)C2=CNC(NC3=NC=C(N4CCNC4)C=C3)N=C2N1C5CCC5</chem>	CDK4: 9 nM; CDK6: 15 nM			Mol Cancer Ther. 2004, 3(11):1427-38.	phase II	Selleck Chemicals, Sigma-Aldrich, Tocris		571190-30-2
CDK7	CMGC	THZ1		<chem>CN(C)C/C=C/C(=O)Nc1ccc(cc1)C(=O)Nc2ccc(cc2)Nc3nc(Cl)c4c[nH]c43</chem>	3.2 nM		BMS181	Nature. 2014, 511(7511):616-20.	preclinical	Medchem Express	covalent	1604810-83-4
CDK9	CMGC	NVP-2		<chem>COC[C@H](N)[C@H]1CC[C@@H]1NC2=CC(=C3CC(=CC4(C#N)C(=O)CC4)=N3)C=C2</chem>	0.5 nM		NVP-1, SNS-032	WO 2011012661	preclinical			1263373-43-8
CHK1	CAMK	PF-477736		<chem>CN1C=C2=C3C=NNC(C4=C3C(N2)=CC(NC1([C@H](N)O5CCCC5)=O)=C4)O)C=N1</chem>	Chk1: 0.49 nM; Chk2: 47 nM	VEGFR2, FMS, YES	SCH900776, LY2603618, CHIR-124	Mol Cancer Ther. 2008, 7(8):2394-404.	Phase I	Selleck Chemicals, Santa Cruz Biotechnology, Sigma-Aldrich, Tocris, MedChem Express		952021-60-2
CHK2	CAMK	CCT241533		<chem>OC(C)(C)C[C@@H]1CNC(C[C@H]1NC2=C3C=C(OC)C(OC)=CC3=N)C4=CC(F)=CC=C4O=N2</chem>	Chk2: 3 nM; Chk1: 190 nM	PHK, MARK3		Cancer Res. 2011, 71(2):463-72.	preclinical	Aurum Pharmatech		1262849-73-9
CK1e	CK1	PF-4800567		<chem>NC1=C2C(N(C3CCOCC3)N=C2COC4=CC=CC(C1)=C4)NC=N1</chem>	CK1e: 32 nM; CK1δ: 711 nM	EGFR	D4476, PF-670462	J Pharmacol Exp Ther. 2009, 330(2):430-9.	preclinical	Santa Cruz Biotechnology, Tocris, EMD Millipore		1188296-52-7

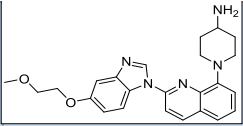
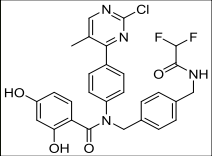
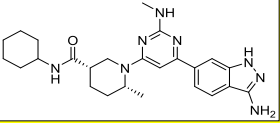
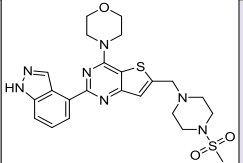
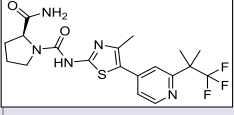
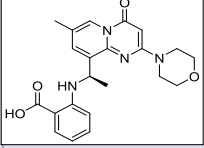
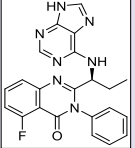
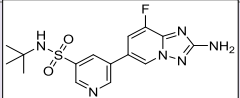
CK2	CMGC	CX-4945		<chem>O=C(O)C1=C(C=C2C(N=C(C3=C2C=NC=C3)NC4=CC=CC(C1)=C4)=C1</chem>	1 nM		TBB, CX-5011, CX-5279	Cancer Res. 2010, 70(24):10288-98.	phase II	Selleck, Santa Cruz Biotechnology, Abcam		1009820-21-6	
CLK1	CMGC	KH CB19		<chem>O=C(C(N1C=C(C(C#N)=C1)C2=C1C(Cl)=C(Cl)C=C2)OCC</chem>	19.7 nM	CLK4, DYRK1A	TG003	Chem Biol. 2011, 18(1):67-76.	Preclinical	Santa Cruz Biotechnology, Tocris		1354037-26-5	
DDR	TK	DDR1-IN-1		<chem>CC1=C(OC2=CC=C(NC(C3)=O)C3=C2)C=C(NC(C4=C(C=C(CN5CCN(C(C)C5)C(C(F)F)F)=C4)=O)C=C1</chem>	105 nM			ACS Chem. Biol. 2013, 8, 2145-2150	Preclinical	Tocris, Medchem Express		1449685-96-4	
DLK	TKL	GNE-3511		<chem>FC(C1(F)CCN1C2=CC(C3CCN(C4OCC4)CC3)=CC(NC5=CC(C#N)=CC=N5)=N2</chem>	0.5 nM (Ki)	JNK		J Med Chem. 2015, 58(1):401-18.	Preclinical			1496581-76-0	
DYRK1	CMGC	Harmine		<chem>CC1=NC=CC2=C1NC3=C2C=CC(OC)=C3</chem>	DYRK1A: 33 nM; DYRK1B: 166 nM		TG003	FEBS J. 2009, 276(21):6324-37.	Preclinical	Sigma-Aldrich, Santa Cruz Biotechnology, Tocris, Cayman chemical		442-51-3	
DYRK1B	CMGC	AZ191		<chem>CN1CCN(C2=CC=C(NC3=CC=CC=C3)C=C(C4=CC=NC=C4)OC=NC=C54)=CN5C)=N3C(OC)=C2)C1</chem>	17 nM			Biochem J. 2014, 457(1), 43-56.	Preclinical	Selleck, Sigma		1594092-37-1	
EGFR	TK	afatinib		<chem>O=C(NC1=C(C2=C(NC3=C(C=C(F)C(C1)=C3)N=CN=C2)C=C1O)C@@H]4COCC4)/C=C/CN(C)C</chem>	0.4 nM	ErbB2	gefitinib, lapatinib	Oncogene. 2008, 27(34):4702-11.	Phase III	Selleck Chemicals, LC Laboratories	covalent		439081-18-2
ErbB2	TK	CP-724714		<chem>O=C(NC/C=C(C1=CC2=C(C(=NC3=CC=C(C(OC4=CC=C(C)N=C4)C(C)=C3)N=CN=C2)COC</chem>	10 nM		Lapatinib, AZD8931	Cancer Res. 2007, 67(20):9887-93.	Phase II	Selleck Chemicals, Santa Cruz Biotechnology, abcam		537705-08-1	

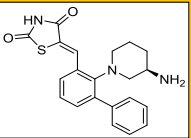
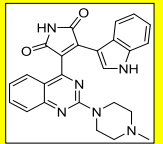
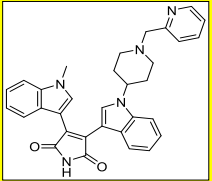
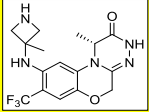
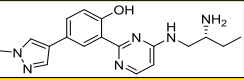
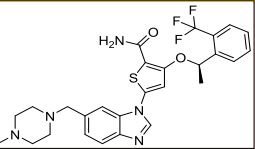
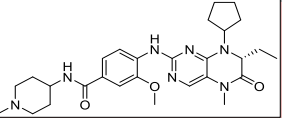
ErbB3	TK	TX-85-1		NC1=C2C(N(C3CC(N4C CN(C(C)=O)C C4)CC3)N=C 2C5=CC=C(O C6=CC=CC= C6)C(NC(C= C)=O)=C5)=N C=N1	23 nM			Nature Chemical Biology 2014, 10, 1006–1012	Preclinical			1603845-32-4
Erk1/2	CMGC	SCH772984		O=C(CN1CC[C@H](C1)C(NC2=CC3=C(C=C2)NN=C3 C4=CC=NC=C4)=O)N5CC N(C(C5)C6=C C=C(C=C6)C	ERK1: 4 nM; ERK2: 1 nM		GDC-0994, FR180204, VTX-11e (Erk2 only)	Cancer Discov. 2013, 3(7):742-50	Preclinical	Selleck Chemicals		942183-80-4
Erk5	CMGC	XMD8-92		CCOC1=CC(=CC=C1NC1=NC=C2N(C)C(-O)C3=CC=CC=C3N(C)C2=N1)N1CC	80 nM (Kd)	DCAMKL1, DCAMKL2	XMD17-109	Cancer Cell. 2010, 18(3):258-67.	Preclinical	Selleck Chemicals, Tocris		1234480-50-2
FAK	TK	PND-1186		O=C(NC1=C(C)C(OC)=CC(C=C1)N(C2=CC(NC3=C(C(OC)C=C(N4CCOCC4)C=C3)=NC=C2C(F)(F)F	1.5 nM		PF-562271 Defactinib TAE226	Cancer Biol Ther. 2010, 9(10):764-777.	Phase I	Selleck Chemicals		1061353-68-1
FGFR	TK	BGJ-398		O=C(NC1=C(C)C(OC)=CC(C=C1)N(C(OC)=C1C)N(C2=NC=NC(NC3=CC=C(N4CCN(C)CC4)C=C3)=C2)C=C3)=C2)C	FGFR1: 0.9 nM; FGFR2: 1.4 nM; FGFR3: 1.0 nM; FGFR4: 60 nM	VEGFR2	AZD4547	J Med Chem. 2011, 54(20):7066-83.	Phase II	Selleck Chemicals, Santa Cruz Biotechnology, axon medchem		872511-34-7
FLT3	TK	AC220		O=C(NC1=C(C)C(C2=CN3C(C(OC)=CC(O)CCN5COC(C)C5)=CC=C34)=N2)C=C1)NC	4.2 nM	KIT, PDGFRA, PDGFRB, RET, and CSF1R	MLN518	Blood. 2009, 114(14):2984-92.	Phase III	Selleck Chemicals		950769-58-1
FMS	TK	GW2580		NC1=NC=C(C(OC)C2=CC=C(C(OC)C=C3)C(OC)=C2)C(N)=N1	60 nM		OSI-930, Linifanib	Proc Natl Acad Sci U S A. 2005, 102(44):16078-83.	Preclinical	Selleck Chemicals, sigma-Aldrich, abcam		870483-87-7
FRAP	Atypical	AZD2014		O=C(NC1=C(C)C(OC)C(C2=NC3=C(N4C)@H(C)CO(C)C4)=NC(N5C@H(C)C(O)C5)=C3C=C2)=C1	2.8 nM		INK128, Torin2, Torin1, KU-0063794, WYE-354, AZD8055	Bioorg Med Chem Lett. 2013, 23(5):1212-6.	Phase II	Selleck Chemicals, Santa Cruz Biotechnology		1009298-59-2

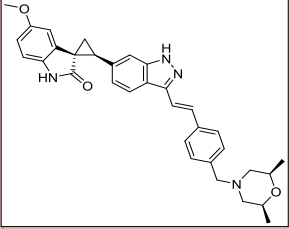
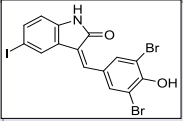
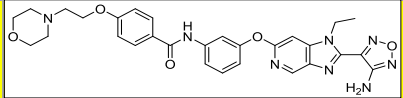
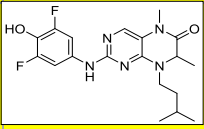
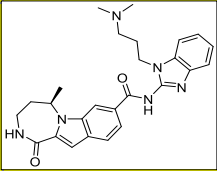
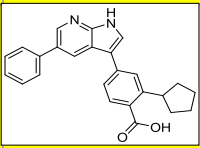
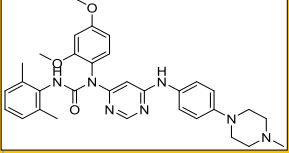
FRAP	Atypical	rapamycin		COC1CC(C(C)C2CC(=O)C(C)C=C(C)C(O)C(OC)C(=O)C(C)CC(C)C=CC=CC=C(C)C(CC3CC(C)C(O)O3)C(=O)C(=O)N3CCCC3(=O)O2)OC)CC1O	0.1 nM		Everolimus, Ridaforolimus	J Biol Chem. 2007, 282(18):13395-401.	Phase IV	Selleck Chemicals, Cayman Chemical, Medchem Express, Tocris	allosteric, bind to cytosolic protein FKBP12	53123-88-9
GSK3A/B	CMGC	CHIR-99021		N#CC1=CN=C(NCCNC2=NC=C(C3=NC(C)=CN3)C(C)4=CC=C(C)C=C4Cl)=N2)C=C1	GSK-3α: 10 nM; GSK-3β: 6.7 nM		CHIR-98014, AR-A0144418, SB216763	Front Mol Neurosci. 2011, 4:32.	Preclinical	Selleck Chemicals, Tocris, Cayman Chemical, abcam		252917-06-9
IGF1R	TK	NVP-AEW541		NC1=C2C(N(C)C@H)3C(C)C@H)4C4CC(C)3)C=C2C5=CC=CC(OCC6=CC=C(C=C6)=C5)=NC=N1	150 nM	INSR, FLT3, FLT3, TEK	OSI-906 (non-ATP competitive), BMS-536924	Cancer Cell. 2004, 5(3):231-9.	Preclinical	Selleck Chemicals, Cayman Chemical		475489-16-8
IKKb	Other	B1605906		CCC(F)C1=C2C(N=C(C(N)=O)SC2=NC(N3CCC(S(C)(=O)=O)CC3)=C1)F	380 nM	IGF1R	MLN120B, PHA408	J. Biochem J. 2011, 434(1):93-104.	Preclinical			960293-88-3
JAK2	TK	Ruxolitinib		N#CC(C)@H(C1CCCC1)N2C=C(C(N2)C3=C4C=CNC4=NC=N3)	0.036 nM	JAK1	CEP33779	Nat Biotechnol. 2011, 29(11):1046-51.	Phase II	Selleck Chemicals, LC Laboratories		941678-49-5
JAK3	TK	Tofacitinib		C]C@H]([C@H](C1)N(C2=C3C=CN(C)C2)C(C)N1C(C)C#N)C(=O)O	1 nM	JAK1, JAK2		Science. 2003, 302(5646):875-8.	Phase IV	Selleck Chemicals, LC Laboratories		477600-75-2
JNK1/2/3	CMGC	JNK-IN-8		CN(C)C(C=C)C(=O)NC1=C(C)C=CC(=C1)C(=O)NC1=CC(O)=C(NC2=N(C)CC(=N2)C2=CN=CC=C2)	JNK1: 4.7 nM; JNK2: 18.7 nM; JNK3: 1nM		JNK-9L, AS601245, SP600125	Chem Biol. 2012, 19(1):140-54.	Preclinical	Selleck Chemicals, EMD Millipore	covalent	1410880-22-6
KIT	TK	Imatinib		O=C(NC1=C(C)C(C)NC2=NC=CC(C3=CC=CN(C)C4=CC=CC=C34)C(=O)N)C(=O)N5=CC=C(N)C=C5	100 nM	PDGFR, v-Abl	Masitinib	Blood. 2000, 96(3):925-32.	Phase IV	Selleck Chemicals, TCI		152459-95-5

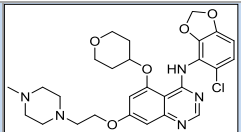
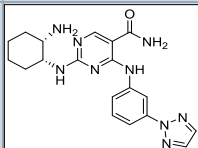
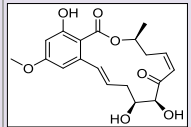
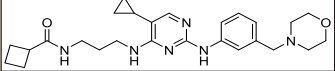
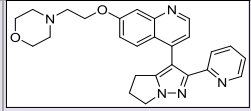
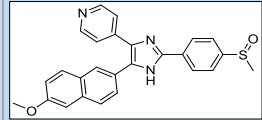
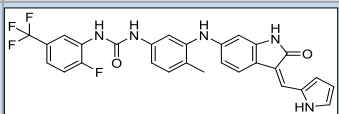
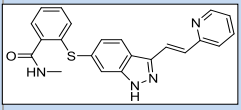
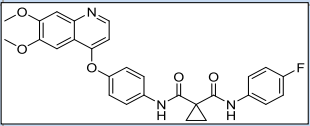
LCK	TK	WH-4-023		<chem>COC1=CC=C(N(C(=O)OC2=C(C)C=C=C2C)C2=NC(NC3=CC=C(C=C3)N3CCN(C)CC3)=NC=C2)C(OC)=C1</chem>	2 nM	Src	PP1, PP2	J Med Chem. 2006, 49(16):4981-91.	Preclinical	Selleck Chemicals		837422-57-8	
LRRK2	TKL	GNE7915		<chem>O=C(C1=CC(OC)=C(NC2=NC=C(C(F)F)C(NCC)=N2)C=C1F)N3COC=CC3</chem>	9 nM	TTK, ALK	HG-10-102-01, GNE0877, GNE9605, LRRK2-IN-1	J Med Chem. 2012, 55(22):9416-33.	Preclinical	Selleck Chemicals, MedChem Express		1351761-44-8	
MAP2K	STE	Trametinib		<chem>CC(NC1=CC=C(C(C1)N2C3CC3=O)=C(NC4=CC=C(I)C=C4F)N5C)=C(C)C5=O)C2=O)=C1)=O</chem>	MAP2K1: 0.92 nM; MAP2K2: 1.8 nM		PD0325901, PD184352	Int J Oncol. 2011, 39(1):23-31.	Phase III	Selleck Chemicals		871700-17-3	
MAP2K1	STE	Selumetinib		<chem>O=C(C1=C(NC2=CC=C(Br)C=C2)C(F)=C3N=CN(C)C3=C1)NOCCO</chem>	14 nM		ERK1/2	Clin Cancer Res. 2007, 13(5):1576-83.	Phase II	Selleck Chemicals	allosteric		606143-52-6
MAP2K5	STE	BIX 02188		<chem>O=C(C1=CC(=O)NC(C1)C2=C(NC3=CC=CC(C)C3)C=C(C)N(C)C)C3=C4CC=CC=C4)N</chem>	4.3 nM	ERK5	BIX 02189	Biochem Biophys Res Commun. 2008, 377(1):120-5.	Preclinical	Selleck Chemicals, Axon Medchem, abcam		1094614-84-2	
MAP3K5	STE	MSC2032964A		<chem>O=C(C1=CC(=CN=C1)NC2=NN3C(C=C(C(F)F)C=C3)NC4CC4)=N2</chem>	93 nM	CK1d	TC ASK 10	EMBO Mol Med. 2010, 2(12):504-15.	Preclinical			1124381-43-6	
MAPKAPK2	CAMK	PF3644022		<chem>O=C1N[C@H](C)NC2=C1SC3=CC=C4N=C(C5=CC=C(C)N=C5)C=CC4=C32</chem>	5.2 nM	MAPKAPK3, MAPKAPK5		J Pharmacol Exp Ther. 2010, 333(3):797-807.	preclinical	Sigma-Aldrich, Tocris		1276121-88-0	
MELK	CAMK	OTSSP167		<chem>O=C(C)C1=C(C2=NC(C3=C(C)C(=O)C=C3)O)=CC=C2N=C1)N(C)C@H]4CC[C@@H]5[CC4]CN(C)C5</chem>	0.41 nM	multiple	MELK-T1	Oncotarget. 2012, 3(12):1629-40.	preclinical	Selleck Chemicals, Medchem Express		1431697-89-0	

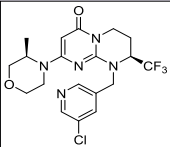
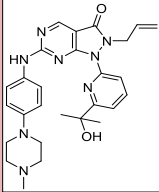
MET	TK	SGX-523		CN1N=CC(C2=NN3C(C=C2)=NN=C3SC4=CC=CC=C4)=C1	4 nM		INCB28060, ARQ197 (non-ATP competitive)	Mol Cancer Ther. 2009, 8(12):3181-90.	Phase I	Selleck Chemicals, EMD millipore		1022150-57-7
MLCK	CAMK	MLCK inhibitor peptide 18		N[C@@H](C(=O)C(N)=O)C(N)=O	50 nM			J Med Chem. 1999, 42(5):910-919.	preclinical	Tocris		224579-74-2
MLK	TKL	URMC-099		CN(C1CCN1CC2=CC=C(C=C2)C=C3C=C(C=C3)N4C(C=C5=CC=C(C=C5)N4)=C3	MLK1: 19 nM MLK2: 42 nM MLK3: 14 nM	LRRK2, FLT3		J Med Chem. 2013, 56(20):8032-8048.		Selleck Chemicals		1229582-33-5
Mps1	Other	MPS1-IN-1		OC1CCN(C2=CC(OC)=C(NC3=CC(NC4=C(C=CC=C4)S(C(C)C)(=O)=O)=C5C(NC=C5)=N3)C=C2)CC1	367 nM	ALK, LTK	MPI-0479605, AZ3146, NMS-P715	Nat Chem Biol. 2010, 6(5):359-68.	Preclinical	Tocris		1125593-20-5
NuaK1/2	CAMK	WZ4003		CCC(NC1=C(C=CC(OC2=C(NC3=CC(NC4=C(C=CC=C4)N(C(C)C)C=C3OC)=N2)Cl)=C1=O	NUAK1: 20 nM; NUAK2: 100 nM		HTH01-015	Biochem J. 2014, 457(1):215-25.	preclinical	Selleck Chemicals, Medchem Express		1214265-58-3
p38a	CMGC	VX-745		O=C1N=CN2N=C(SC3=CC=C(F)C=C3F)=C(F)C=C3F)C=CC2=C1C4=C(C1)C=CC=C4Cl	p38a: 10 nM; p38β: 220 nM		LY2228820, PH-797804, BIRB796 (allosteric)	Nat Biotechnol. 2008, 26(1):127-32.	Preclinical	Selleck Chemicals, Tocris, Santa Cruz Biotechnology, Axon Medchem		209410-46-8
p70S6K	AGC	PF-4708671		CCC1=C(N=C(N=C1)N1CCN(C2=CC=CC=C2)C(C)=CC3=CC=CC=C3)C(F)C(F)C(F)C1	160 nM	MSK1		Biochem J. 2010, 431(2):245-55.	preclinical	Selleck Chemicals, Sigma-Aldrich, Medchem Express, Tocris		1255517-76-0
PAK4	STE	PF-3758309		CC1=NC2=C(SC=C2)C(NC3=CC=CC=C3)C(NC4=CC=CC=C4)C1	1.3 nM	PAK1/5/6		Proc Natl Acad Sci U S A. 2010, 107(20):9446-9451.	Preclinical	Selleck Chemicals		898044-15-0

PDGFR	TK	CP-673451		NC1CCN(C2=C3N=C(N4C=NC5=CC(OCOC)=CC=C45)C=CC3=C=C2)CC1	PDGFR α : 10 nM; PDGFR β : 1 nM	c-Kit		Cancer Res. 2005, 65(3):957-66.	Preclinical	Selleck Chemicals		343787-29-1
PDHK	Atypical	VER-246608		O=C(N(C1=C C=C2=NC(C)=NC=C2C)C=C1)CC3=C C=C(CNC(C(F)F)=O)C=C3)C4=C(O)C=C(O)C=C4	PDHK1: 35 nM PDHK2: 84 nM PDHK3: 40 nM PDHK4: 91 nM		AZD7545	Oncotarget. 2014, 5(24):12862-12876.	preclinical			
PDK1	AGC	GSK2334470		CNC1=NC(=C C(N1)C1=C C=C2C(N)=N NC2=C1)N1C [C@H](CC[C @H]1)C1=O) NC1CCCC1	2.5 nM			J Med Chem. 2011, 54(6):1871-95.	preclinical	Selleck Chemicals, Sigma-Aldrich, Medchem Express, Tocris, Santa Cruz Biotechnology		1227911-45-6
PI3K	lipid kinase	GDC-0941		O=S(N1CCN(CC2=CC3=NC(C4=CC=CC(=C4C=NN5)=NC(N6CCOCC6)=C3S2)CC1)(C)=O	p110 α : 3 nM; p110 β : 33 nM; p110 γ : 75 nM; p110 δ : 3 nM		NVP-BKM120, XL-147	J Med Chem. 2008, 51(18):5522-32.	Phase II	Selleck Chemicals, abcam		957054-30-7
PI3Ka	lipid kinase	BYL-719		O=C(N1[C@H](C(N)=O)C CC1)NC2=NC(C)=C(C3=CC(C)(C)C(F)(F)F)=NC=C3)S2	p110 α : 5 nM; p110 β : 1200 nM; p110 γ : 250 nM; p110 δ : 290 nM		GDC-0032, INK1117	Bioorg Med Chem Lett. 2013, 23(13):3741-8.	Phase II	Selleck Chemicals		1217486-61-7
PI3Kb	lipid kinase	AZD6482		O=C(O)C1=C C=CC=C1N(C @H)(C2=C C(C)=CN(C2=NC(N3CCOC3)=C4)C4=O)C	p110 α : 870 nM; p110 β : 10 nM; p110 γ : 1090 nM; p110 δ : 80 nM		TGX-221	J Thromb Haemost. 2012, 10(10):2127-36.	Phase I	Selleck Chemicals, Santa Cruz Biotechnology, Tocris		1173900-33-8
PI3Kd	lipid kinase	CAL-101		O=C1N(C2=C C=CC=C2)C([C@H](CC)NC3=C4N=CNC4=N3)=N1	p110 α : 820 nM; p110 β : 565 nM; p110 δ : 2.5 nM; p110 γ : 89 nM		IC-87114, IPI-145, AMG-319	Blood. 2011, 117(2):591-4.	Phase III	Selleck Chemicals		870281-82-6
PI3Kg	lipid kinase	CZC24832		O=S(C1=CC(C2=CN3C(C(F)=C2)=NC(N)=N3)=CN=C1)NC(C)(C)C)=O	p110 γ : 27 nM	PI3K β , PIP4K2C	AS-605240	Nat Chem Biol. 2012, 8(6):576-82.	Preclinical	Selleck Chemicals, Tocris, Axon Medchem		1159824-67-5

PIM1/2/3	CAMK	AZD1208		<chem>O=C(NC1=O)SC1=C/C2=C(N3C[C@H](N)CCC3)C(C4=CC=CC=C4)=CC=C2</chem>	Pim1: 0.4 nM; Pim2: 5 nM; Pim3: 1.9 nM	CDK7, MAPK15	LGB321, CX-6258	Blood. 2014, 123(6):905-13.	Phase I	Selleck Chemicals		1204144-28-4
PKC	AGC	Sotrastaurin		<chem>O=C(C1=C(NC2=C1C=C(C2)=C3C4=C5C=CC=C4)N(C)CC6=N4)NC3=O</chem>	PKC δ : 0.22 nM(Ki); PKC β : 0.64 nM(Ki); PKC α : 0.95 nM(Ki); PKC η : 1.8 nM(Ki); PKC θ : 2.1 nM(Ki); PKC ϵ : 3.2 nM(Ki)		Go 6983	J Pharmacol Exp Ther. 2009, 330(3):792-801.	phase II	Selleck Chemicals, Axon medchem		425637-18-9
PKC δ	AGC	Enzastaurin		<chem>O=C(C1=C(N(C)C2=C1C=CC(=C2)C3=C4CN(C5CCN(C)CC6=NC=C(C=C6)CC5)C7=C4C=CC=C7)NC3=O</chem>	6 nM	PKC α , γ , ϵ		Cancer Res. 2005, 65(16):7462-9.	phase III	Selleck Chemicals, Cayman Chemical		170364-57-5
PKC θ	AGC	Compound 41		<chem>O=C1NN=C2COC3=CC(C(F)(F)F)=C(NC4(C)CNC4)C=C3N2[C@@H]1C</chem>	23 nM	PKC α		J. Med. Chem. 2015, 58, 222 – 236	preclinical			1613717-26-2
PKD1/2/3	CAMK	CRT 0066101		<chem>OC1=CC=C(C2=CN(C)N=C2)C=C1C3=NC(NC[C@@H](CC)N)=CC3</chem>	PKD1: 1 nM; PKD2: 2.5 nM; PKD3: 2 nM		kb NB 142-70, BPKDi	Mol Cancer Ther. 2010, 9(5):1136-46.	preclinical	Tocris, abcam		956123-34-5, 1290629-45-6 (HCl Salt)
PLK1	Other	GSK461364		<chem>O=C(C1=C(O[C@@H](C2=CC=CC=C2)C(F)(F)F)C=C(N3C=NC4=C(C=C4)CN5CCN(C)CC5)C=C3)S1)N</chem>	0.5 nM (Ki)		MLN0905, Ro3280	Cancer Res. 2009, 69(17):6969-77.	Phase I	Selleck Chemicals		929095-18-1
PLK1/2/3	Other	BI2536		<chem>O=C(NC1CCN(C)CC1)C2=CC=C(NC3=CC(=C2)C=C3N(C4CCC4)[C@@H]5CC(=NC=C3N(C)C5=O)C(O)C=C2</chem>	PLK1: 0.83 nM; PLK2: 3.5 nM; PLK3: 9.0 nM	BRD4	BI6727	Curr Biol. 2007, 17(4):316-22.	Phase II	Selleck Chemicals, Axon Medchem		755038-02-9

PLK4	Other	CFI-400945		<chem>O=C1NC2=C(C=C(OC)C=C2)C@H3C4=C(C(NN=C5=C(C/C6=CC=C(CN7C)C@H(C)O)C@H(C)C7)C=C6)=C5C=C4</chem>	2.8 nM	ABL T315I, TRKA, TRKB, BMX		Cancer Cell. 2014, 26(2):163-76.	Preclinical			1338800-06-8
RAF1	TKL	GW5074		<chem>O=C1NC2=C(C=C(I)C=C2)/C1=C/C3=CC(Br)=C(O)C(Br)=C3</chem>	9 nM		ZM 336372	J Neurochem. 2004, 90(3):595-608.	Preclinical	Selleck Chemicals, Sigma-Aldrich, Tocris, Santa Cruz Biotechnology, Cayman Chemical		220904-83-6
ROCK1/2	AGC	GSK269962A		<chem>O=C(NC1=C(C=CC(OC2=CC3=C(N=C(C4=NON=C4)N)N3CC)C=N2)=C1)C5=CC=C(N)C=C5</chem>	ROCK1: 1.6 nM; ROCK2: 4 nM	MSK1, RSK1	GSK429286A	J Pharmacol Exp Ther. 2007, 320(1):89-98.	preclinical	Medchem Express, Tocris, axon Medchem		850664-21-0
RSK	AGC	BI-D1870		<chem>O=C1N(C)C2=C(N=C(C3=CC(F)=C(O)C(F)=C3)N=C2)N(CCC(C)C)C1C</chem>	RSK1: 31 nM; RSK2: 24 nM; RSK3: 18 nM; RSK4: 15 nM	MST2	FMK (covalent)	Biochem J. 2007, 401(1):29-38.	preclinical	Selleck Chemicals, Cayman Chemical, Medchem Express		501437-28-1
RSK2	AGC	BIX 02565		<chem>C[C@H](CCN1)N2C3=C(C=CC(C)NC4=N(C)C=CC5=N4CCCN(C)C)O=C3)C=C2</chem>	1.1 nM	LRRK2, PRKD1/2/3, RET		Bioorg Med Chem Lett. 2012, 22(1):738-42.	preclinical	Medchem Express		1311367-27-7
SGK1/2	AGC	GSK650394		<chem>OC(=O)C1=C(C=C(C=C1)C)C2=NC(=C(C=C2)C)C1=CC=C(C=C1)C</chem>	SGK1: 62 nM; SGK2: 103 nM		EMD638683	Cancer Res. 2008, 68(18):7475-83.	preclinical	Sigma-Aldrich, Medchem Express, Tocris, Axon medchem		890842-28-1
SIK1/2/3	CAMK	HG-9-91-01		<chem>OOC1=CC=C(N(C(=O)NC2=C(C)C=CC=C2)C2=CC(NC3=CC=C(C)C)N3CCN(C)CC3)=NC=C1</chem>	SIK1: 0.92 nM; SIK2: 6.6 nM; SIK3: 9.6 nM	NUAK2, Src, Yes, EphA4		Proc Natl Acad Sci U S A. 2012, 109(42):16986-91.	preclinical	Chemscene		1456858-58-4

SRC	TK	AZD0530		<chem>CN1CCN(CCOC2=CC3=NOC2=CC3=N)C=NC(NC4=C5OCOC5=CC=C4Cl)=C3C(OC6CCOCC6)=C2)CC1</chem>	2.7 nM	LCK, c-YES, Lyn, Fyn, FGR, BLK, v-Abl		Mol Oncol. 2009, 3(3):248-61.	Phase III	Selleck Chemicals, MedChem Express	379231-04-6
SYK	TK	P505-15		<chem>O=C(C1=CN=C(NC@H)2C@H(N)CC(C2)N=C1NC3=CC=CC(N4N=CC=N4)=C3)N</chem>	1 nM	FGR, MLK1	GSK143	J Pharmacol Exp Ther. 2012, 340(2):350-9.	Preclinical	Selleck Chemicals	1370261-96-3, 1370261-97-4 (HCl salt)
TAK1	TKL	(5Z)-7-Oxozeaenol		<chem>OCC1=CC(O)=C2C(/C=C/C[C@@H]([C@@H](C/C=C/C[C@H](OC2=O)C)=O)O)=C1</chem>	8.1 nM	MEKK1, MEKK4, NF-αB, JNK/p38	NG-25	Future Med Chem. 2015, 7(1):23-33.	Preclinical	Tocris, Sigma-Aldrich, EMD Millipore	66018-38-0
TBK1	Other	MRT67307		<chem>O=C(NCCCN1=C(C=NC(NC2=CC(CN3COCOC3)=C=C2)=N1)C1=CC=CC=C1)C(=O)N</chem>	19 nM	MARK1/2/3/4, SIK1/2/3, IKKe and NUAK1		Biochem J. 2011, 434(1):93-104.	Preclinical	Sigma-Aldrich, EMD Millipore, Tocris	1190378-57-4
TGFR1/2	TKL	LY2109761		<chem>C1=CC2=CC(C3=CC=CC=C3N3)=C(C=C2)C(=O)N4C=CC(=C4)C(=O)N5C=CC(=O)N6C(=O)C(=O)N5C=C15</chem>	TGFR1: 38 nM(Ki); TGFR2: 300 nM(Ki)			Mol Cancer Ther. 2008, 7(4):829-40.	Preclinical	Selleck Chemicals, MedChem Express, Santa Cruz Biotechnology, Cayman Chemical	700874-71-1
TIE2	TK	Compound 5		<chem>CS(C(C=C1)=CC=C1C2=N(C3=CC=NC=C3)=C(C4=CC(C=CC(OC)=C5)=C5=C(C4)N2)=O</chem>	250 nM			Bioorg Med Chem Lett. 2007, 17(17), 4756-4760.	Preclinical	Selleck Chemicals	948557-43-5
TRK	TK	GNF-5837		<chem>O=C(NC1=C(C(F)(F)F)C(F)C(F)C1)NC2=CC=C(C(C)C)NC3=CC(NC4=O=C(C=C3)C4)=C5</chem>	TrkA: 11 nM; TrkB: 9 nM; TrkC: 7 nM			ACS Med Chem Lett. 2012, 3(2):140-5.	Preclinical	Selleck Chemicals, EMD millipore, Tocris	1033769-28-6
VEGFR	TK	Axitinib		<chem>O=C(NC1=C(C=CC=C1S)C=CC2=CC=CC=C2)N=C3C=CC(=C4=C3C=CC(=N4)=C3C=C2</chem>	VEGFR1: 0.1 nM VEGFR2: 0.2 nM VEGFR3: 0.1-0.3 nM	PDGFRβ, c-Kit		Clin Cancer Res. 2008, 14(22):7272-83.	Phase IV	Axon MedChem Cayman Chemical Santa Cruz Biotechnology Selleck Chemicals SIGMA Tocris Bioscience	319460-85-0
VEGFR2	TK	Cabozantinib		<chem>COC1=C(OC)C=CC(C(OC)3=CC=C(NC(C4(C(C4)C(NC5=CC=C(F)C=C5)O)O)C=C3)CC=N2)=C1</chem>	VEGFR1: 12 nM VEGFR2: 0.035 nM VEGFR3: 6 nM	c-MET, RET, FLT1/3/4, Tie2, AXL		Cancer Res. 2011, 71(14):4758-68.	Phase IV	Selleck Chemicals	849217-68-1, 1140909-48-3 (malate)

Vps34	lipid kinase	SAR405		<chem>O=C1N2C(N(CC3=CN=CC(C)=C3)[C@H](C(F)(F)F)CC2)=NC(N4CCOC[C@H]4C)=C1</chem>	1.5 nM (Kd)		VPS34-IN1, PIK-III	Nat Chem Biol 2014 10, 1013–1019	Predinical	Pharmablock		1523406-39-4
Wee1	Other	MK-1775		<chem>CC(O)(C)C1=NC(N2N(CC=C)C(C3=C2N=C(NC4=CC=C(C)C4)N(C)C5)C=C3)N=C1</chem>	5.2 nM			Mol Cancer Ther, 2009, 8(11):2992-3000.	Phase II	Selleck Chemicals Axon MedChem		955365-80-7