

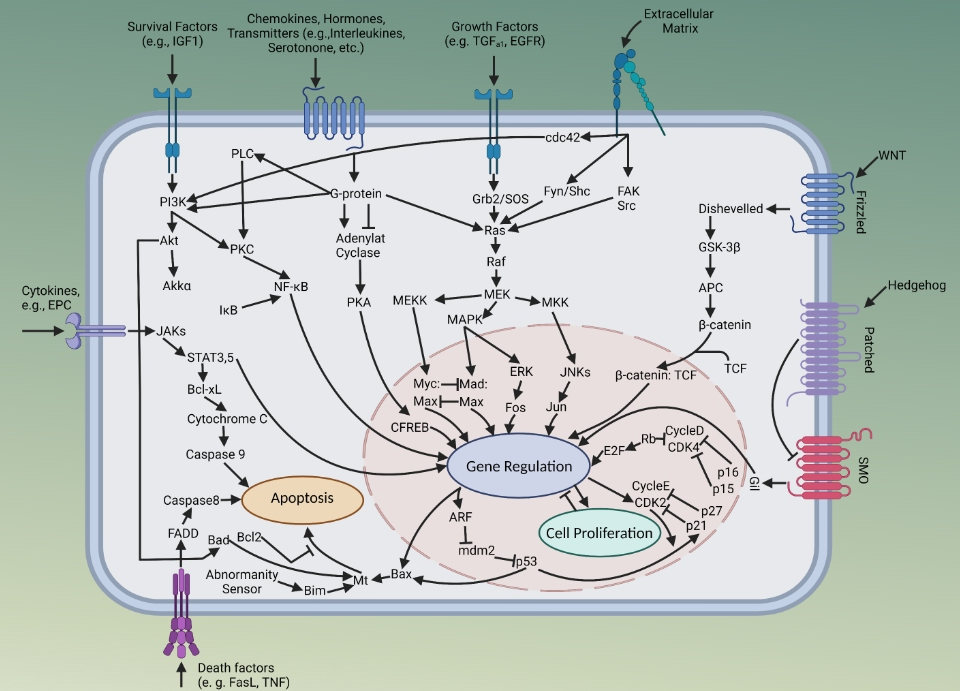
Signal Transduction Related Ligands

Signal transduction allows an organism to sense its environment and formulate the proper biochemical response. The proteins responsible for the mediation of information are generally called receptors. The changes induced by ligand binding in a receptor initiate biochemical cascades, known as signaling pathways.

These cascades are the key mechanisms for the control of cell growth, proliferation, metabolism, and many other processes. So, a small ligand can interfere with and regulate the cell signal transduction processes, forming an important instrument for modern medicinal chemistry, as well as a therapeutic practice.

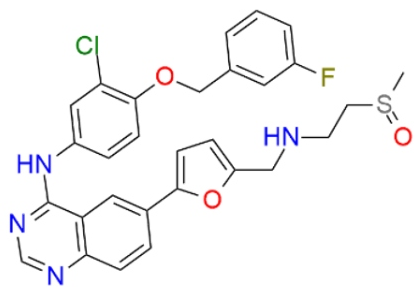
Signal Transduction Related Ligands Library contains 944 small ligands, some representative molecules are given below: Selatinib, EGFR/HER-2 inhibitor; XAV-939, Tankyrase1/2 inhibitor; G10, agonist of stimulator of STING; Fedratinib, Broad spectrum kinase inhibitor.

Related terms: epidermal growth factor, Janus kinase, kinase insert domain receptor, aryl hydrocarbon receptor, glycogen synthase kinase, mitogen-activated protein kinase, fibroblast growth factor



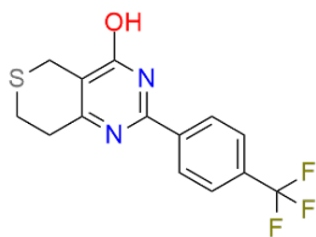
Signal transduction pathways in mammalian cell (Created by BioRender.com)

Highlights



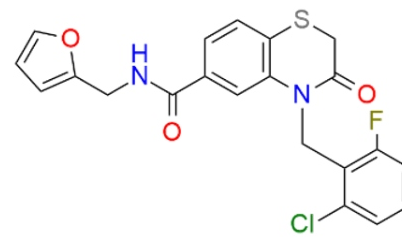
EBC-47120
CAS: 1275595-86-2

Selatinib, EGFR/HER-2
inhibitor



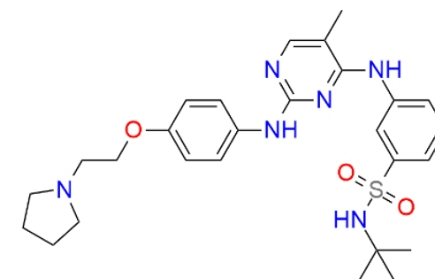
EBC-11320
CAS: 284028-89-3

XAV-939, Tankyrase1/2
inhibitor



EBC-12383
CAS: 702662-50-8

G10, agonist of stimulator of
STING



EBC-17140
CAS: 936091-26-8

Fedratinib, Broad spectrum
kinase inhibitor

Library Composition

Name	Occurrence in the library, times
epidermal growth factor receptor	24
Janus kinase 2	14
kinase insert domain receptor	13
Aryl hydrocarbon receptor	13
glycogen synthase kinase 3 beta	13
mitogen-activated protein kinase 14	13
fibroblast growth factor receptor 1	11
Janus kinase 1	11
tankyrase 2	11
Endothelial NOS	11
Inducible NOS	10

MDM2 proto-oncogene		10
mitogen-activated protein kinase 10		10
cathepsin B		9
Neuronal NOS		9
erb-b2 receptor tyrosine kinase 2		8
Janus kinase 3		8
mitogen-activated protein kinase 8		8
glycogen synthase kinase 3 alpha		7
tyrosine kinase 2		7
neurotrophic receptor tyrosine kinase 1		6
tankyrase		6
casein kinase 1 delta		6
CXCR4		6

heat shock protein 90 beta family member 1		6
fms related receptor tyrosine kinase 1		5
neurotrophic receptor tyrosine kinase 3		5
B-Raf proto-oncogene, serine/threonine kinase		5
indoleamine 2,3-dioxygenase 1		5
fibroblast growth factor receptor 2		5
signal transducer and activator of transcription 3		5
mitogen-activated protein kinase 9		5
AT1 receptor		4
casein kinase 1 epsilon		4
Caspase 3		4
mitogen-activated protein kinase kinase 1		4
neurotrophic receptor tyrosine kinase 2		3

component of inhibitor of nuclear factor kappa B kinase complex	—	3
fibroblast growth factor receptor 3	—	3
Insulin receptor	—	3
fms related receptor tyrosine kinase 4	—	3
mitogen-activated protein kinase 1	—	3
protein kinase A	—	3
activin A receptor type 1	—	3
casein kinase 1 alpha 1	—	3
SMO	—	3
3-phosphoinositide dependent protein kinase 1	•	2
MET proto-oncogene, receptor tyrosine kinase	•	2
Insulin-like growth factor I receptor	•	2
CaS receptor	•	2

cathepsin L	•	2
cathepsin S	•	2
EP2 receptor	•	2
EPH receptor B4	•	2
erb-b2 receptor tyrosine kinase 4	•	2
MAPK interacting serine/threonine kinase 2	•	2
interleukin 1 receptor associated kinase 4	•	2
mitogen-activated protein kinase kinase 2	•	2
proteasome 20S subunit beta 5	•	2
protein kinase, cAMP-dependent, catalytic, alpha subunit	•	2
Raf-1 proto-oncogene, serine/threonine kinase	•	2
SST3 receptor	•	2
activin A receptor type II	•	1

advanced glycosylation end-product specific receptor

•

1

AKT serine/threonine kinase 1

•

1

AKT serine/threonine kinase 2

•

1

activin A receptor type 1B

•

1

serine/threonine kinase 4

•

1

AKT serine/threonine kinase 3

•

1

cathepsin H

•

1

EP4 receptor

•

1

fibroblast growth factor receptor 4

•

1

casein kinase 1 gamma 2

•

1

IMPase 1

•

1

tryptophan 2,3-dioxygenase

•

1

inhibitor of nuclear factor kappa B kinase subunit beta

•

1

Interferon- γ receptor	•	1
IP3 kinase A	•	1
KCa3.1	•	1
Liver X receptor- α	•	1
MAPK activated protein kinase 2	•	1
mitogen-activated protein kinase 13	•	1
mitogen-activated protein kinase 11	•	1
calcium/calmodulin-dependent protein kinase II alpha subunit	•	1
macrophage stimulating 1 receptor	•	1
inhibitor of nuclear factor kappa B kinase subunit epsilon	•	1
TANK binding kinase 1	•	1
myosin light chain kinase	•	1
NLRP3	•	1

PAF receptor

•

1

PLC γ 2

•

1

proteasome 20S subunit beta 1

•

1

proteasome 20S subunit beta 8

•

1

proteasome 20S subunit beta 9

•

1

proteasome 20S subunit beta 2

•

1

SERCA1

•

1

synaptic vesicle glycoprotein 2A

•

1

transforming growth factor beta receptor 1

•

1

Transforming growth factor β receptor

•

1

transforming growth factor beta receptor 2

•

1