

# **Small Molecule Kinase Inhibitors**

SYNkinase is a primary producer of over 200 research-use-only small molecule **Kinase Inhibitors**, for life science and drug discovery researchers.

#### **Key Features**

- Includes Many Unique Small Molecules
- Versatile Research-relevant Targets
- High Quality & Highly Pure Compounds
- In-house Manufactured Available in BULK!
- All Compounds Available in Catalog Sizes from 1–100 mg

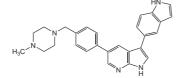
New from the Bench

### Potent MLK-3 & LRRK2 Inhibitor

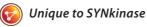
#### **© URMC-099**

SYN-1211

**Formula:** C<sub>27</sub>H<sub>27</sub>N<sub>5</sub> **MW:** 421.5 **CAS:** 1229582-33-5



Inhibition of MLK-3 is a strategy for the treatment of Parkinson's disease and HIV-1 associated neurocognitive disorders (HAND). URMC-099 is an orally bioavailable MLK-3 inhibitor with excellent brain exposure in mouse PK models and minimal interference with key human CYP450 enzymes or human ERG channels. It inhibits multiple kinase pathways including MLK-3 (14nM) and LRRK2 (11nM).



# Visit www.adipogen.com for a complete Overview on all Kinase Inhibitors!

## Unique SYNkinase Inhibitors

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COLLABORATING WITH





# EGFR-JAK/STAT Signaling Pathway

JAK tyrosine kinases and STAT transcription factors constitute a signaling pathway, which is activated by cytokines, such as EGFR (see pathway) and consequently activates e.g. MAPK and mTOR pathways. By activating gene transcription it regulates essential biological responses, involved in the regulation of cell development, differentiation, immune cell proliferation, apoptosis and inflammation. Improper function of this pathway may contribute to hematopoietic malignancies and cancer.

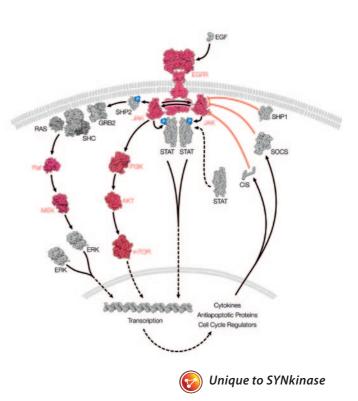
### **Potent Selective TYK2 Inhibitor**

### 6 GDC-046

SYN-1198

**Formula:** C<sub>16</sub>H<sub>13</sub>Cl<sub>2</sub>N<sub>3</sub>O<sub>2</sub> **MW:** 350.2 **CAS:** 1258292-64-6

Potent selective TYK2 inhibitor ( $K_i$ =4.8nm) versus JAK1 ( $K_i$ =84nm) and JAK2 ( $K_i$ =28nm). Lead compound with good kinase selectivity, physico-chemical properties and pharmacokinetic profile.



## JAK/STAT Pathway Inhibitors

PRODUCT NAME	TARGETS	PID
<b>© GLPG0634</b>	JAK1, JAK2	SYN-1158
🔕 Baricitinib . phosphate	JAK1, JAK2	SYN-1117
NVP-BSK805.2HCI	JAK2	SYN-1136
<b>© CEP-33779</b>	JAK2	SYN-1156
XL019	JAK2	SYN-1191
🔞 TG-46	JAK2, FLT3, RET, JAK3	SYN-1106
📀 TG-89	JAK2, FLT3, RET, JAK3	SYN-1107
Merck-5	JAK1, JAK2, JAK3, TYK2	SYN-1054

PRODUCT NAME	TARGETS	PID
🔕 Bayer-18	TYK2	SYN-1130
💿 RO495	TYK2	SYN-1128
PRT-060318	SYK	SYN-1204
TAK-632	pan-RAF	SYN-1203
SK25	RSK1, p70S6K	SYN-1124
PD-173955-Analog1	c-Src kinase (CSK)	SYN-1062
PF-4618433	PYK2	SYN-1163
PF-431396	FAK, PYK2	SYN-1063
CX-6258	Pim-1, Pim-2, Pim-3	SYN-1182

## **Growth Factor Inhibitors**

PRODUCT NAME	TARGETS	PID
🔞 AV-412	EGFR, ErbB2 (HER2) kinases	SYN-1012
<b>©</b> CP-724714	ErbB2 (HER2) kinases	SYN-1033
<b>©</b> AG13958	VEGF	SYN-1004
Tivozanib	VEGFR-1, 2 & 3	SYN-1013
Motesanib	VEGFR-1, 2 & 3, PDGFR, c-Kit	SYN-1055
Regorafenib	VEGFR-1, 2 & 3, PDGFR, c-Kit, RET, Raf-1	SYN-1169

PRODUCT NAME	TARGETS	PID
Pazopanib	VEGFR, PDGFR, c-Kit	SYN-1058
SU-5402	VEGFR-2 (KDR), FGFR1	SYN-1084
<b>INJ-38158471</b>	VEGFR-2 (KDR)	SYN-1133
SAR-131675	VEGFR-3	SYN-1165
Sakeda-6d	B-Raf, VEGFR-2 (KDR)	SYN-1168
S AMG-25	c-Kit	SYN-1125
SAMG-Tie2-1	Tie-2	SYN-1008







# PI3K/AKT/mTOR Signaling Pathway

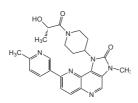
The mTOR pathway is involved in many processes, including tumor formation, angiogenesis, autophagy, apoptosis, insulin resistance, adipogenesis and T-lymphocyte activation. Aberrant activation of the PI3K pathway has been widely implicated in many cancers and increased activity of this pathway is often associated with resistance to cancer therapies.

### Potent PI3K/mTOR Dual Kinase Inhibitor

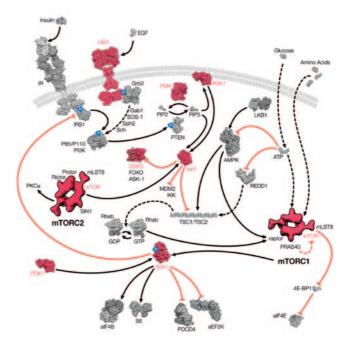
#### PF-04979064

SYN-1194

**Formula:** C<sub>24</sub>H<sub>26</sub>N<sub>6</sub>O<sub>3</sub> **MW:** 446.5 **CAS:** 1258292-64-6



Potent and selective PI3K/mTOR dual kinase inhibitor. Shows potent K<sub>i</sub> values against PI3K $\alpha$  (K<sub>i</sub>=0.13nM human, 0.299nM mouse), PI3K $\gamma$  (K<sub>i</sub>=0.111nM) and PI3K $\delta$  (K<sub>i</sub>=0.122nM) in direct kinase assays. K<sub>i</sub> value for mTOR is 10X higher at 1.42nM.



## PI3K/AKT/mTOR Pathway Inhibitors

PRODUCT NAME	TARGETS	PID
PIK-75	PI3K (p110α isoform)	SYN-1067
TASP0415914	PI3K (p110γ isoform)	SYN-1208
PIK-90	PI3K (p110 $\alpha/\delta/\gamma$ isoform)	SYN-1068
GDC-0032	PI3K (p110 $\alpha/\delta/\gamma$ isoform)	SYN-1202
😺 GNE-490	pan-PI3K	SYN-1114
😺 GNE-493	pan-PI3K/mTOR	SYN-1115
💿 NIBR-17	Class I PI3K	SYN-1145
🚱 GNE-477	Dual PI3K/mTOR	SYN-1148
<b>BGT226</b>	РІЗК	SYN-1178A
🚱 Akt-I-1	Akt1	SYN-1005
🙆 Akt-I-2 . HCl	Akt1, Akt2	SYN-1006

#### 🛜 Unique to SYNkinase

PRODUCT NAME	TARGETS	PID
🚱 Merck-22-6	Akt1, Akt2	SYN-1118
A-674563 . HCl	Akt1, PKA, CDK2	SYN-1110
S AZD-26	Akt	SYN-1160
📀 S6K-18	S6K1	SYN-1132
🚱 BLZ-945	CSF-1R	SYN-1197
🚱 JNJ-28312141	CSF-1R, FLT3	SYN-1154
🚱 KW-2449 . HCl	FLT3	SYN-1205
<b>O</b> AST-487	FLT3	SYN-1210
🚱 AMG-51	c-Met	SYN-1111
SGX-523	c-Met	SYN-1155
AMG-1	c-Met, RON	SYN-1143

## MAPK Pathway Inhibitors

PRODUCT NAME	TARGETS	PID	PRODUCT NAME	TARGETS	PID
📀 CC-401 . HCl	JNK (all 3 forms)	SYN-1028	SB242235	р38 МАРК	SYN-1076
Bentamapimod	JNK	SYN-1147	🕲 R1487 . HCl	р38 МАРК	SYN-1101
SD-06	ρ38α ΜΑΡΚ	SYN-1078	😨 S-99	ASK1	SYN-1119
SD-169	ρ38α ΜΑΡΚ	SYN-1079	🕲 AMG-47a	Lck, KDR, SRC, p38 MAPK	SYN-1007
RWJ-67657	ρ38α/β ΜΑΡΚ	SYN-1072	🕲 CH4987655	MEK	SYN-1188

**Small Molecule Kinase Inhibitors** 

Please visit our website **www.adipogen.com** for a comprehensive overview on all SYNkinase Reagents.





# **Cell Cycle Regulation**

The cell cycle is regulated by the interplay of many molecules. Key among these are cyclins which combine with cyclin dependent kinases (CDKs) to form activated kinases that phosphorylate targets leading to cell cycle regulation. A breakdown in the regulation of this cycle leads to uncontrolled cell division or propagation of damaged DNA which can contribute to genomic instability and tumorigenesis. Defects in many of the molecules, that regulate the cell cycle, have been implicated in cancer.

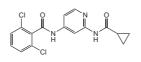
### **ATP-competitive Potent CHK1 Inhibitor**

#### SAR-020106

SYN-1189

**Pathway and Target Specific Arrays** 

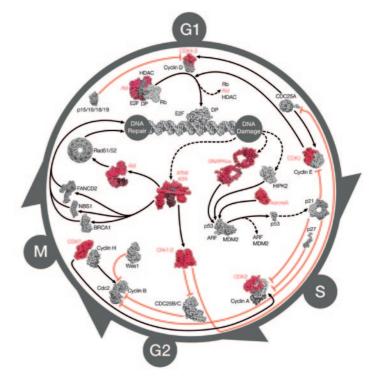
**Formula:** C<sub>19</sub>H<sub>19</sub>ClN<sub>6</sub>O **MW:** 382.9 **CAS:** 1184843-57-9



ATP-competitive, potent and selective CHK1 inhibitor with an  $IC_{50}$  of 13.3nM on the isolated human enzyme. Inhibits cytotoxic drug-induced autophos-phorylation of CHK1 at S296 in a dose-dependent fashion both *in vitro* and *in vivo*.

# Cell Cycle Inhibitors

PRODUCT NAME	TARGETS	PID
CX-4945	CK2	SYN-1109
😨 AT7519 . HCl	CDKs	SYN-1010
PHA-690509	CDK2	SYN-1097
😵 BMS-387032. HCl	CDK2, CDK7, CDK9	SYN-1080
Alvocidib	CDK1, CDK2, CDK4, CDK6	SYN-1040
<b>BS-194</b>	CDK1, CDK2, CDK5, CDK7,	SYN-1151



PRODUCT NAME	TARGETS	PID
Purvalanol B	Cdc2/cyclin B, CDK2/cyclin A,	SYN-1070
SNS-314	pan-Aurora Kinase	SYN-1081
📀 PD-173955	Dual Src/Bcr-Abl kinase	SYN-1061
🚱 BMS-3	LIMK1, LIMK2	SYN-1023
BMS-5	LIMK1, LIMK2	SYN-1024

## Selected Other Inhibitors

PRODUCT NAME	TARGETS	PID
SR3677	ROCK-I, ROCK-II	SYN-1083
<b>VTX-27</b>	ΡΚϹθ	SYN-1206
😨 SP2509	LSD1	SYN-1212

PRODUCT NAME	TARGETS	PID
GCI1746	ВТК	SYN-1164
😵 RN486 . TFA	ВТК	SYN-1184
GSK2606414	PERK	SYN-1201

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Unique to SYNkinase



#### EUROPE/REST OF WORLD

**Adipogen International** TEL +41-61-926-60-40 FAX +41-61-926-60-49 info@adipogen.com

For local distributors please visit our website.

#### **NORTH & SOUTH AMERICA**

Adipogen Corp. TEL +1-858-457-8383 FAX +1-858-457-8484 info-us@adipogen.com **NOV 2014**