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Inhibitors, Screening Libraries, Proteins

# LIM Kinase (LIMK)

## LIMKs

LIM kinases (LIMKs) are important cell cytoskeleton regulators that play a prominent role in cancer manifestation and neuronal diseases. The LIMK family consists of two homologues, LIMK1 and LIMK2, which differ from one another in expression profile, intercellular localization, and function. The main substrate of LIMK is cofilin, a member of the actin-depolymerizing factor (ADF) protein family. When phosphorylated by LIMK, cofilin is inactive. LIMKs play a contributory role in several neurodevelopmental disorders and in cancer growth and metastasis.

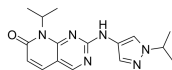
LIM domain kinases (LIMK1 and 2) are substrate for Cdc42/Rac-PAK, and modulate actin dynamics by phosphorylating cofilin at serine-3. This modification inactivates cofilin's actin severing and depolymerizing activity. LIMKs also translocate into the nucleus and regulate cell cycle progression. LIMKs are potential therapeutic targets for NF2 and other merlin-deficient tumors.

## LIM Kinase (LIMK) Inhibitors

### Aurora/LIM kinase-IN-1

Cat. No.: HY-144438

Aurora/LIM kinase-IN-1 (Compound F114) is a potent and dual inhibitor of **aurora** and **lim** kinase. Aurora kinases and lim kinases are involved in neoplastic cell division and cell motility, respectively. Aurora/LIM kinase-IN-1 inhibits GBM proliferation and invasion.

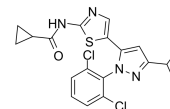


**Purity:** >98%  
**Clinical Data:** No Development Reported  
**Size:** 1 mg, 5 mg

### BMS-3

Cat. No.: HY-18304

BMS-3 is a potent **LIMK** inhibitor with  $IC_{50}$ s of 5 nM and 6 nM for **LIMK1** and **LIMK2**, respectively.



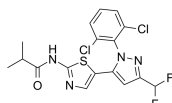
**Purity:** 99.46%  
**Clinical Data:** No Development Reported  
**Size:** 10 mM × 1 mL, 5 mg, 10 mg, 50 mg, 100 mg

### BMS-5

(LIMKi 3)

Cat. No.: HY-18305

BMS-5 (LIMKi 3) is a potent **LIMK** inhibitor with  $IC_{50}$ s of 7 nM and 8 nM for **LIMK1** and **LIMK2**, respectively.

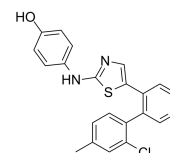


**Purity:** 99.35%  
**Clinical Data:** No Development Reported  
**Size:** 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

### CRT0105950

Cat. No.: HY-120025

CRT0105950 is a potent **LIMK** inhibitor, with  $IC_{50}$ s of 0.3 nM and 1 nM for **LIMK1** and **LIMK2** respectively. CRT0105950 can be used for the research of cancer.



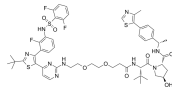
**Purity:** >98%  
**Clinical Data:** No Development Reported  
**Size:** 1 mg, 5 mg

### DD-03-156

((S,R,S)-AHPC-Me-PEG2-dabrafenib)

Cat. No.: HY-137346

DD-03-156 is a potent and selective degrader of **CDK17** and **LIMK2**. The selectivity and potency of DD-03-156 is exquisite and makes an advanced starting point for the development of a chemical probe for the degradation of CDK17.

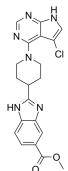


**Purity:** >98%  
**Clinical Data:** No Development Reported  
**Size:** 1 mg, 5 mg

### R-10015

Cat. No.: HY-120097

R-10015, a broad-spectrum antiviral compound for HIV infection, acts as a potent and selective inhibitor of **LIM domain kinase (LIMK)** and binds to the ATP-binding pocket, with an  $IC_{50}$  of 38 nM for human LIMK1.

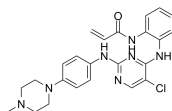


**Purity:** 99.72%  
**Clinical Data:** No Development Reported  
**Size:** 10 mM × 1 mL, 5 mg, 10 mg, 50 mg, 100 mg

### SM1-71

Cat. No.: HY-136848

SM1-71 (compound 5) is a potent **TAK1** inhibitor, with a  $K_i$  of 160 nM, it also can covalently inhibit **MKNK2**, **MAP2K1/2/3/4/6/7**, **GAK**, **AAK1**, **BMP2K**, **MAP3K7**, **MAPKAPK5**, **GSK3A/B**, **MAPK1/3**, **SRC**, **YES1**, **FGFR1**, **ZAK (MLTK)**, **MAP3K1**, **LIMK1** and **RSK2**.

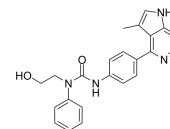


**Purity:** 96.00%  
**Clinical Data:** No Development Reported  
**Size:** 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

### SR7826

Cat. No.: HY-19353

SR7826 is a class of bis-aryl urea derived potent, selective and orally active **LIM kinase (LIMK)** inhibitor with an  $IC_{50}$  of 43 nM for **LIMK1**. SR7826 is >100-fold more selective for **LIMK1** than **ROCK** and **JNK** kinases.



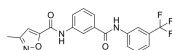
**Purity:** 98.74%  
**Clinical Data:** No Development Reported  
**Size:** 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

### T56-LIMKi

(T5601640)

Cat. No.: HY-19352

T56-LIMKi is a selective inhibitor of **LIMK2**; inhibits the growth of Panc-1 cells with an  $IC_{50}$  of 35.2  $\mu$ M.

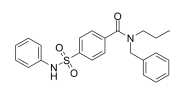


**Purity:** 98.91%  
**Clinical Data:** No Development Reported  
**Size:** 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

### TH-257

Cat. No.: HY-122630

TH-257 is a potent inhibitor of **LIMK1** and **LIMK2** with  $IC_{50}$  values of 84 nM and 39 nM for **LIMK1** and **LIMK2**, respectively, and it can be used as a chemical probe for **LIMK1** and **LIMK2**.



**Purity:** 98.91%  
**Clinical Data:** No Development Reported  
**Size:** 10 mM × 1 mL, 5 mg, 10 mg