IRAK

Interleukin-1 receptor associated kinase; IL-1R associated kinase

Interleukin-1 receptor-associated kinases (IRAKs), are serine/threonine kinases, play critical roles in initiating innate immune responses against foreign pathogens and other types of dangers through their role in Toll-like receptor (TLR) and interleukin 1 receptor (IL-1R) mediated signaling pathways. The four different IRAK-like molecules have been identified: two active kinases, IRAK-1 and IRAK-4, and two inactive kinases, IRAK-2 and IRAK-M. All IRAKs mediate activation of nuclear factor-kappaB (NF-κB) and mitogen-activated protein kinase (MAPK) pathways.

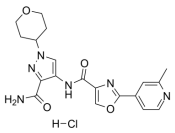
Toll-like receptors transduce their signals through the adaptor molecule MyD88 and members of the IL-1R-associated kinase family (IRAK-1, 2, M and 4). IRAK-1 and IRAK-2, known to form Myddosomes with MyD88-IRAK-4, mediate TLR7-induced TAK1-dependent NF-κB activation. IRAK-M is known to function as a negative regulator that prevents the dissociation of IRAKs from MyD88, thereby inhibiting downstream signalling.

IRAK Inhibitors & Modulators

AS2444697

Cat. No.: HY-18992

AS2444697 is an orally active **IRAK-4** inhibitor with an IC_{50} of 21 nM. AS2444697 potently inhibits human and rat IRAK-4 activity. AS2444697 exhibits renoprotective effects through anti-inflammatory action.

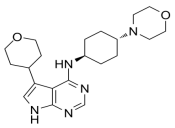


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

AZ1495

Cat. No.: HY-111101

AZ1495 (compound 28) is an oral active inhibitor of Interleukin-1 receptor associated kinase 4 **(IRAK4)**, with IC_{50} values of 5 nM and 23 nM for IRAK4 and IRAK1, respectively. Shows activity in treatment of mutant $MYD88^{L265P}$ diffuse large B-cell lymphoma (DLBCL).

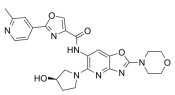


Purity: 99.83%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

CA-4948

Cat. No.: HY-135317

CA-4948 is a potent **IRAK4/FLT3** inhibtor with anti-tumor activity.



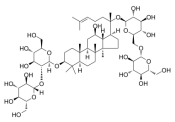
Purity: 99.92%
Clinical Data: Phase 1
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg, 100 mg

Ginsenoside Rb1

(Gypenoside III)

Cat. No.: HY-N0039

Ginsenoside Rb1, a main constituent of the root of Panax ginseng, inhibits **Na^+, K^+-ATPase** activity with an IC_{50} of 6.3±1.0 μM. Ginsenoside also inhibits **IRAK-1** activation and phosphorylation of **NF-κB p65** .

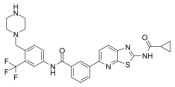


Purity: 98.35%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

HG-12-6

Cat. No.: HY-123956

HG-12-6 is a type II inhibitor of **IRAK4**. HG-12-6 shows preferential binding to unphosphorylated inactive **IRAK4** with an IC_{50} of 165 nM. HG-12-6 can modulate **IRAK4** activity in autoimmunity and inflammation.

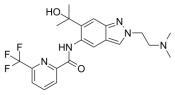


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

HS271

Cat. No.: HY-131903

HS271 is a highly potent, orally active and selective **IRAK4** inhibitor, with an IC_{50} of 7.2 μM. HS271 exhibits superior enzymatic and cellular activities, as well as excellent pharmacokinetic properties.

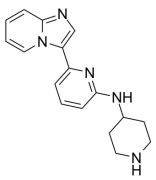


Purity: 99.92%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

IRAK inhibitor 1

Cat. No.: HY-13275

IRAK inhibitor 1 is a potent **IRAK-4** inhibitor with IC_{50} of 216 nM, is poorly active against JNK-1 and JNK-2 with IC_{50} of 3.801 μM, and >10 μM, respectively.

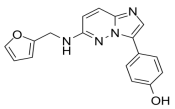


Purity: 98.05%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg

IRAK inhibitor 2

Cat. No.: HY-13276

IRAK inhibitor 2 is interleukin-1 receptor associated kinase inhibitor .

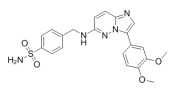


Purity: 98.87%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg

IRAK inhibitor 3

Cat. No.: HY-13277

IRAK inhibitor 3 is an interleukin-1 (IL-I) receptor-associated kinase (**IRAK**) kinase modulator extracted from patent WO2008030579 A2.

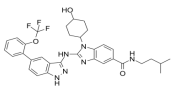


Purity: 98.17%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg

IRAK inhibitor 4

Cat. No.: HY-13278

IRAK inhibitor 4 is an interleukin-1 receptor associated kinase 4(**IRAK4**) inhibitor.



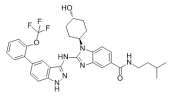
Purity: 99.77%
Clinical Data: No Development Reported
Size: 5 mg

Tel: 609-228-6898 Fax: 609-228-5909 Email: sales@MedChemExpress.com

IRAK inhibitor 4 trans

Cat. No.: HY-13278A

IRAK inhibitor 4 (trans) is the trans form of IRAK inhibitor 4. IRAK inhibitor 4 is an interleukin-1 receptor associated kinase 4 (**IRAK4**) inhibitor.

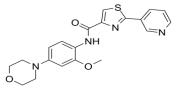


Purity: 99.09%
Clinical Data: No Development Reported
Size: 5 mg

IRAK inhibitor 6

Cat. No.: HY-13280

IRAK inhibitor 6 is an inhibitor of **interleukin-1 receptor associated kinase 4 (IRAK-4)** with IC_{50} of 160 nM.



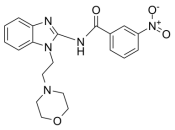
Purity: 99.75%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg

IRAK-1-4 Inhibitor I

(IRAK-1/4 Inhibitor I)

Cat. No.: HY-13329

IRAK-1-4 Inhibitor I is an inhibitor of interleukin-1 receptor-associated kinase 1/4 (**IRAK 1/4**) with IC_{50}s of 0.2 μM and 0.3 μM, respectively.

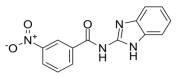


Purity: 99.88%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg, 50 mg, 100 mg

IRAK-4 protein kinase inhibitor 2

Cat. No.: HY-77048

IRAK-4 protein kinase inhibitor 2 (compound 1) is a potent inhibitor of **interleukin-1 (IL-1) receptor-associated kinase-4 (IRAK-4)**, with an IC_{50} of 4 μM. IRAK-4 protein kinase inhibitor 2 can be used for the research of inflammatory and immune-related conditions or disorders.

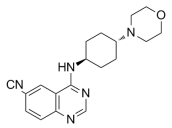


Purity: >98%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 10 mg

IRAK4-IN-1

Cat. No.: HY-101922

IRAK4-IN-1 is an interleukin-1 receptor associated kinase 4 (**IRAK4**) inhibitor with an IC_{50} of 7 nM.

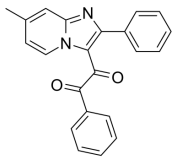


Purity: ≥99.0%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 1 mg, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

IRAK4-IN-4

Cat. No.: HY-114181

IRAK4-IN-4 is an interleukin-1 receptor-associated kinase 4 (**IRAK4**) inhibitor extracted from patent CN107163044A, Compound15, has an IC_{50} of 2.8 nM. IRAK4-IN-4 also inhibits **cyclic GMP-AMP synthase** (**cGAS**) with an IC_{50} of 2.1 nM.

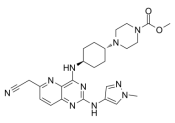


Purity: 99.72%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

IRAK4-IN-6

Cat. No.: HY-130253

IRAK4-IN-6 is an orally efficacious and selective **IRAK4** inhibitor with an IC_{50} of 4 nM, and targetes MyD88 L265P mutant diffuse large B cell lymphoma.

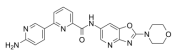


Purity: 99.92%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

IRAK4-IN-7

Cat. No.: HY-109585

IRAK4-IN-7 is a selective, potent and orally active **interleukin-1 receptor-associated kinase 4 (IRAK4)** inhibitor, extracted from patent WO2015104688 (example 1). IRAK4-IN-7 has the potential for cancer and inflammatory diseases treatment.

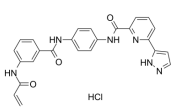


Purity: 98.44%
Clinical Data: Phase 1
Size: 10 mM × 1 mL, 2 mg, 5 mg, 10 mg, 50 mg, 100 mg

JH-X-119-01 hydrochloride

Cat. No.: HY-103017

JH-X-119-01 hydrochloride is a potent and selective interleukin-1 receptor-associated kinases 1 (**IRAK1**) inhibitor. JH-X-119-01 hydrochloride ameliorates LPS-induced sepsis in mice.

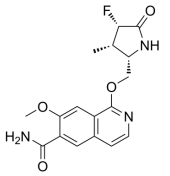


Purity: 89.79%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 1 mg, 5 mg, 10 mg, 50 mg

PF-06426779

Cat. No.: HY-123854

PF-06426779 is a potent and selective inhibitor of **interleukin1 receptor associated kinase 4 (IRAK4)**, with an IC_{50} of 0.3 nM.

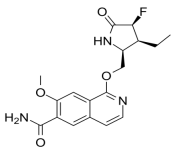


Purity: 99.83%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

PF-06650833

Cat. No.: HY-19836

PF-06650833 is a potent, selective and orally active inhibitor of **interleukin-1 receptor associated kinase 4 (IRAK4)** with IC_{50}s of 0.2 and 2.4 nM in the cell and PBMC assay, respectively. PF-06650833 is used to treat diseases such as rheumatoid arthritis, lupus, and lymphomas.

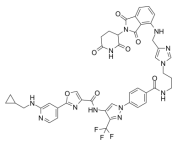


Purity: 99.84%
Clinical Data: Phase 2
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg, 100 mg

PROTAC IRAK4 degrader-1

Cat. No.: HY-129966

PROTAC IRAK4 degrader-1 is a PROTAC interleukin-1 receptor-associated kinase 4 (**IRAK4**) degrader extracted from patent US20190192668A1 Compound I-210, makes <20%, >20-50%, and >50% IRAK4 degradation at 0.01, 0.1, and 1 μM in OCI-LY-10 cells, respectively.



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