RIP kinase
Receptor-interacting protein kinases; RIPK

Receptor interacting protein 2 (RIP2), a serine/threonine kinase, is an adaptor molecule of NOD1 and NOD2, and genetic variation in this receptor is known to be associated with the severity of allergic asthma in children.

Receptor interacting protein kinase 2 (RIPK2) is critical for NOD-mediated NF-κB activation and cytokine production. WEHI-345, a selective RIPK2 kinase inhibitor, which delays RIPK2 ubiquitylation and NF-κB activation downstream of NOD engagement.

Receptor interacting protein kinase 3 (RIPK3) is a cytosolic master regulator of necroptosis. RIPK3 has an active serine/threonine kinase domain at the N-terminus, and a unique protein-protein interaction domain called the RIP homotypic interaction motif (RHIM) at the C-terminus. Both kinase activity and RHIM are indispensable for necroptosis. RIPK3 interacts with other RHIM-containing proteins such as RIPK1, Toll/interleukin-1 (IL-1) receptor domain-containing adaptor protein inducing TRIF or DAI. RIPK3 induces necroptosis, a type of regulated necrosis, through its kinase domain and RHIM.
RIP kinase Inhibitors

(Rac)-GSK547
Cat. No.: HY-114492A
(Rac)-GSK547 is the racemate of GSK547. GSK547 is a highly selective and potent inhibitor of receptor-interacting serine/threonine protein kinase 1 (RIP1), inhibits macrophage-mediated adaptive immune tolerance in pancreatic cancer.

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

GNE684
Cat. No.: HY-128585
GNE684 is a potent inhibitor of potent receptor interacting protein 1 (RIP1), with mean K<sub>pp</sub> values of 21 nM, 189 nM and 691 nM for human mouse and rat RIP1, respectively.

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

GSK-843 (GSK'843)
Cat. No.: HY-125402
GSK-843 (GSK'843) is a receptor-interacting protein inhibitor, which binds RIP3 kinase domain with an <i>IC</i><sub>50</sub> of 8.6 nM, and inhibits kinase activity with an <i>IC</i><sub>50</sub> of 6.5 nM.

Purity: >98.0%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg

GSK-2593074A (GSK'074)
Cat. No.: HY-122909
GSK2593074A (GSK'074) is a necroptosis inhibitor with dual targeting ability to both RIP1 and RIP3.

Purity: 99.88%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg, 100 mg

GSK2982772
Cat. No.: HY-101760
GSK2982772 is a potent, orally active and ATP competitive RIP1 kinase inhibitor with <i.IC<sub>50</sub> values of 16 nM and 20 nM for human and monkey RIP1, respectively.

Purity: 95.23%
Clinical Data: Phase 2
Size: 10 mM × 1 mL, 1 mg, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

GSK2983559
Cat. No.: HY-112038A
GSK2983559 (compound 3) is a potent, specific and oral bioavailable receptor interacting protein 2 (RIP2) kinase inhibitor, which has excellent activity in blocking many proinflammatory cytokine responses in vivo and in human inflammatory bowel disease explant samples.

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

GSK2983559 active metabolite
Cat. No.: HY-19764
GSK2983559 active metabolite is an active metabolite of GSK2983559. GSK2983559 active metabolite is a receptor interacting protein-2 (RIP2) kinase inhibitor extracted from patent WO/2014043446 A1, compound example 1.

Purity: 98.24%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 1 mg, 5 mg, 10 mg, 50 mg, 100 mg

GSK2983559 free acid
Cat. No.: HY-112038
GSK2983559 free acid (compound 3) is a potent, specific and oral bioavailable receptor interacting protein 2 (RIP2) kinase inhibitor.

Purity: 99.51%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

Tel: 609-228-6898   Fax: 609-228-5909   Email: sales@MedChemExpress.com
<table>
<thead>
<tr>
<th>Compound</th>
<th>Cat. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GSK3145095</td>
<td>HY-111946</td>
<td>GSK3145095 is a RIP1 kinase inhibitor with an IC_{50} of 6.3 nM.</td>
</tr>
<tr>
<td>GSK481</td>
<td>HY-100131</td>
<td>GSK481 is a highly potent, selective, and specific receptor interacting protein 1 (RIP1) kinase inhibitor with an IC_{50} of 1.3 nM, which inhibits Ser166 phosphorylation in wild-type human RIP1 (IC_{50}=2.8 nM).</td>
</tr>
<tr>
<td>GSK547 (GSK547)</td>
<td>HY-114492</td>
<td>GSK547 (GSK547) is a highly selective and potent inhibitor of receptor-interacting serine/threonine protein kinase 3 (RIP3 or RIPK3), inhibits macrophage-mediated adaptive immune tolerance in pancreatic cancer.</td>
</tr>
<tr>
<td>GSK840 (GSK840)</td>
<td>HY-104021</td>
<td>GSK840 (GSK840) is a receptor-interacting protein kinase 3 (RIP3) inhibitor, which binds RIP3 kinase domain with an IC_{50} of 0.9 nM, and inhibits kinase activity with an IC_{50} of 0.3 nM.</td>
</tr>
<tr>
<td>HS-1371</td>
<td>HY-114349</td>
<td>HS-1371 is a potent and ATP-competitive receptor-interacting protein kinase 3 (RIP3) inhibitor with an IC_{50} of 20.8nM.</td>
</tr>
<tr>
<td>Kongensin A</td>
<td>HY-N3417</td>
<td>Kongensin A is a natural product isolated from Croton kongensis. Kongensin A is an effective, covalent HSP90 inhibitor that blocks RIP3-dependent necroptosis. Kongensin A is a selective and potent inhibitor of necroptosis in murine and human cells in vitro.</td>
</tr>
<tr>
<td>Nec-4</td>
<td>HY-18900</td>
<td>Nec-4, a tricyclic derivative, is a potent receptor interacting protein 1 (RIP1) inhibitor, with an IC_{50} of 2.6 μM, IC_{k} of 0.46 μM.</td>
</tr>
<tr>
<td>Necrostatin 2</td>
<td>HY-14622</td>
<td>Necrostatin 2 is a potent necroptosis inhibitor. EC_{50} for inhibition of necroptosis in FADD-deficient Jurkat T cells treated with TNF-α is 0.05 μM. Necrostatin 2 is also a RIPK1 inhibitor.</td>
</tr>
</tbody>
</table>
### Necrostatin 2 racemate
(Necrostatin 1S; Nec-1S; 7-Cl-O-Nec1)

- **Cat. No.:** HY-14622A
- **Purity:** 99.59%
- **Clinical Data:** No Development Reported
- **Size:** 10 mM × 1 mL, 1 mg, 5 mg, 10 mg, 50 mg

Necrostatin 2 racemate (Nec-1S), the Nec-1 stable, is a potent and specific RIPK1 inhibitor lacking the IDO-targeting effect.

### Necrostatin 2 S enantiomer

- **Cat. No.:** HY-14622B
- **Purity:** 99.83%
- **Clinical Data:** No Development Reported
- **Size:** 10 mM × 1 mL, 1 mg, 5 mg, 10 mg, 50 mg

Necrostatin 2 S enantiomer is the S enantiomer of Necrostatin 2. Necrostatin 2 is a potent necroptosis inhibitor, acts as a RIPK1 inhibitor lacking the IDO-targeting effect.

### Necrostatin-1
(Nec-1)

- **Cat. No.:** HY-15760
- **Purity:** 99.87%
- **Clinical Data:** No Development Reported
- **Size:** 10 mM × 1 mL, 10 mg, 50 mg, 100 mg

Necrostatin-1 (Nec-1) is a potent necroptosis inhibitor with an EC\textsubscript{50} of 490 nM in Jurkat cells. Necrostatin-1 inhibits RIP1 kinase (EC\textsubscript{50}=182 nM). Necrostatin-1 is also an IDO inhibitor.

### PK68

- **Cat. No.:** HY-128348
- **Purity:** 99.92%
- **Clinical Data:** No Development Reported
- **Size:** 10 mM × 1 mL, 5 mg, 10 mg, 50 mg

PK68 is a potent and selective type II inhibitor of receptor-interacting kinase 1 (RIPK1) with an IC\textsubscript{50} of ~90nM, displays inhibition of RIPK1-dependent necroptosis.

### Necrostatin-1 racemate

- **Cat. No.:** HY-14622A
- **Purity:** 99.59%
- **Clinical Data:** No Development Reported
- **Size:** 10 mM × 1 mL, 1 mg, 5 mg, 10 mg, 50 mg

Necrostatin 2 racemate (Nec-1S), the Nec-1 stable, is a potent and specific RIPK1 inhibitor lacking the IDO-targeting effect.

### Necrostatin-1 S enantiomer

- **Cat. No.:** HY-14622B
- **Purity:** 99.83%
- **Clinical Data:** No Development Reported
- **Size:** 10 mM × 1 mL, 1 mg, 5 mg, 10 mg, 50 mg

Necrostatin 2 S enantiomer is the S enantiomer of Necrostatin 2. Necrostatin 2 is a potent necroptosis inhibitor, acts as a RIPK1 inhibitor lacking the IDO-targeting effect.

### PROTAC RIPK degrader-2

- **Cat. No.:** HY-111866
- **Purity:** >98%
- **Clinical Data:** No Development Reported
- **Size:** 1 mg, 5 mg

PROTAC RIPK degrader-2 is a nonpeptidic PROTAC which potently targets serine-threonine kinase RIPK2 and has highly selective for RIPK2 degradation.

### RIP1 kinase inhibitor 1

- **Cat. No.:** HY-111409
- **Purity:** 99.95%
- **Clinical Data:** No Development Reported
- **Size:** 1 mg, 5 mg

RIP1 kinase inhibitor 1 is a highly potent, orally available, and brain-penetrating inhibitor (pK\textsubscript{i}=9.04).

### RIP2 kinase inhibitor 1

- **Cat. No.:** HY-133014
- **Purity:** >98%
- **Clinical Data:** No Development Reported
- **Size:** 1 mg, 5 mg

RIP2 kinase inhibitor 1 (compound 22) is a highly potent and selective receptor interacting protein-2 (RIP2) kinase inhibitor with an IC\textsubscript{50} of 0.03 μM for RIP2 FP. RIP2 kinase inhibitor 1 is used for autoinflammatory disorders.

### RIP2 kinase inhibitor 2

- **Cat. No.:** HY-19761
- **Purity:** 99.95%
- **Clinical Data:** No Development Reported
- **Size:** 10 mM × 1 mL, 1 mg, 5 mg, 10 mg, 50 mg, 100 mg

RIP2 kinase inhibitor 2 is a receptor interacting protein-2 (RIP2) kinase inhibitor extracted from patent WO/2014043437 A1, compound example 9.

### RIP2 kinase inhibitor 3

- **Cat. No.:** HY-112907
- **Purity:** >98%
- **Clinical Data:** No Development Reported
- **Size:** 1 mg, 5 mg

RIP2 Kinase Inhibitor 3 is a highly potent and selective inhibitor of receptor interacting protein-2 (RIP2) Kinase with an IC\textsubscript{50} of 1 nM.

### RIPA-56

- **Cat. No.:** HY-101032
- **Purity:** 99.96%
- **Clinical Data:** No Development Reported
- **Size:** 10 mM × 1 mL, 10 mg, 50 mg, 100 mg, 200 mg

RIPA-56 is a highly potent, selective, and metabolically stable inhibitor of receptor-interacting protein 1 (RIP1) with an IC\textsubscript{50} of 13 nM. RIPA-56 can be used for the treatment of systemic inflammatory response syndrome.
**RIPK-IN-4**

Cat. No.: HY-107978

RIPK-IN-4 is a potent and selective RIPK2 inhibitor with excellent oral bioavailability, and has an $IC_{50}$ of 3 nM.

Purity: 99.35%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg, 50 mg

**RIPK1-IN-3**

Cat. No.: HY-126296

RIPK1-IN-3 (Example 38), a RIPK1 inhibitor, extracted from patent WO2018148626A1, possesses anti-inflammatory proprieties.

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

**RIPK1-IN-4**

Cat. No.: HY-18901

RIPK1-IN-4 (compound 8) is a potent and selective type II kinase inhibitor of receptor interacting protein 1 (RIP1) kinase and binds to a DFG-out inactive form of RIP1 with an $IC_{50}$ of 16 nM and 10 nM for RIP1 and ADP-Glo kinase.

Purity: 98.22%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

**RIPK1-IN-7**

Cat. No.: HY-119933

RIPK1-IN-7 is a potent and selective RIPK1 inhibitor with a $K_d$ of 4 nM and an enzymatic $IC_{50}$ of 11 nM. RIPK1-IN-7 exhibits excellent antimitastasis activity in the experimental B16 melanoma lung metastasis model.

Purity: 98.27%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg, 100 mg

**RIPK3-IN-1**

Cat. No.: HY-131064

RIPK3-IN-1 is a RIPK3 type II DFG-out inhibitor with an $IC_{50}$ of 9.1 nM. RIPK3-IN-1 inhibits RIPK1 and RIPK2 with $IC_{50}$s of 5.5 and >10 μM.

RIPK3-IN-1 is also a c-Met kinase inhibitor with an $IC_{50}$ of 1.1 μM.

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

**WEHI-345**

Cat. No.: HY-18937

WEHI-345 is a potent and selective RIPK2 kinase inhibitor with an $IC_{50}$ of 0.13 μM, which delays RIPK2 ubiquitylation and NF-κB activation on oligomerization domain (NOD) stimulation.

Purity: 99.27%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg, 100 mg

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