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Inhibitors, Screening Libraries, Proteins

# Epoxide Hydrolase

Epoxide hydrolases (EH) present in all living organisms. The mammalian soluble epoxide hydrolase (sEH) is a 120 kDa dimer of two identical 62.5 kDa monomers arranged in an anti-parallel fashion. It is mostly expressed in the liver, kidneys, brain, endothelium, and at lesser levels in other tissues. Inflammation and pain are major components of many disease states. Mammalian sEH inhibition reduces blood pressure, inflammation and pain. The anti-inflammatory activities of sEH inhibitors occur in part through the NF- $\kappa$ B mediated down-regulation of COX2 transcription, resulting in lower production of pro-inflammatory prostaglandins such as PGE2 and PGD2.

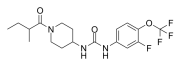
## Epoxide Hydrolase Inhibitors

### (Rac)-EC5026

((Rac)-BPN-19186)

Cat. No.: HY-135653A

(Rac)-EC5026 ((Rac)-BPN-19186) is a potent piperidine inhibitor of **soluble epoxide hydrolase (sEH)** extracted from patent WO2019156991A1, page 39, has a  $K_i$  of 0.06 nM. (Rac)-EC5026 can be used for the research of Parkinson's disease and dementia with Lewy Bodies (DLB).

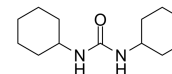


**Purity:** >98%  
**Clinical Data:** Phase 1  
**Size:** 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

### 1,3-Dicyclohexylurea

Cat. No.: HY-W013989

1,3-Dicyclohexylurea (DCU) is an orally active and potent **sEH** (soluble epoxide hydrolase) inhibitor. Oral Delivery of 1,3-Dicyclohexylurea nanosuspension enhances exposure and lowers blood pressure in hypertensive Rats.



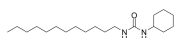
**Purity:** >98%  
**Clinical Data:** No Development Reported  
**Size:** 1 mg, 5 mg

### 1-Cyclohexyl-3-dodecyl urea

(CDU; N-Cyclohexyl-N-dodecyl urea; NCND)

Cat. No.: HY-135795

1-Cyclohexyl-3-dodecyl urea (CDU; N-Cyclohexyl-N-dodecyl urea; NCND) is a highly selective **soluble epoxide hydrolase (sEH)** inhibitor.



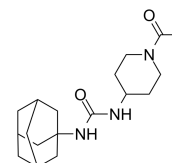
**Purity:** ≥98.0%  
**Clinical Data:** No Development Reported  
**Size:** 10 mM × 1 mL, 5 mg, 10 mg, 50 mg, 100 mg

### AR-9281

(APAU)

Cat. No.: HY-111151

AR9281 is a potent and selective inhibitor of **soluble epoxide hydrolase (s-EH)**, with potential for the treatment of hypertension and type 2 diabetes.



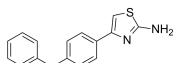
**Purity:** 98.12%  
**Clinical Data:** No Development Reported  
**Size:** 10 mM × 1 mL, 5 mg

### ARM1

(4BSA)

Cat. No.: HY-W027340

ARM1 (4BSA) is a potent **aminopeptidase** and **epoxide hydrolase** inhibitor. ARM1 shows aminopeptidase inhibitory activity with an  $IC_{50}$  of 7.61  $\mu$ M and epoxide hydrolase inhibitory activity with an  $IC_{50}$  of 12.4  $\mu$ M.



**Purity:** >98%  
**Clinical Data:** No Development Reported  
**Size:** 5 mg, 10 mg, 25 mg

### AUDA

Cat. No.: HY-108570

AUDA (compound 43) is a potent **soluble epoxide hydrolase (sEH)** inhibitor with  $IC_{50}$ s of 18 and 69 nM for the mouse and human sEH, respectively. AUDA has anti-inflammatory activity.

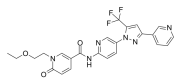


**Purity:** ≥98.0%  
**Clinical Data:** No Development Reported  
**Size:** 10 mM × 1 mL, 10 mg, 50 mg, 100 mg, 250 mg

### BI-1935

Cat. No.: HY-124063

BI-1935 is a potent **soluble epoxide hydrolase (sEH)** inhibitor for diseases related to cardiovascular disease.

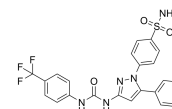


**Purity:** 98.08%  
**Clinical Data:** No Development Reported  
**Size:** 10 mM × 1 mL, 5 mg, 10 mg, 50 mg, 100 mg

### COX-2/sEH-IN-1

Cat. No.: HY-146704

COX-2/sEH-IN-1 (Compound 9c) is an orally active, dual **COX-2** and **sEH** (soluble epoxide hydrolase) inhibitor with  $IC_{50}$  values of 1.24  $\mu$ M and 0.40 nM against COX-2 and sEH, respectively. COX-2/sEH-IN-1 shows improved anti-inflammatory activity and highly reduced cardiovascular risks.



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

### CUDA

Cat. No.: HY-121538

CUDA is a potent inhibitor of **soluble epoxide hydrolase (sEH)**, with  $IC_{50}$ s of 11.1 nM and 112 nM for mouse sEH and human sEH, respectively. CUDA selectively increases **peroxisome proliferator-activated receptor (PPAR) alpha** activity.

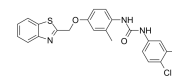


**Purity:** ≥98.0%  
**Clinical Data:** No Development Reported  
**Size:** 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

### Diflapolin

Cat. No.: HY-128171

Diflapolin is a highly active dual 5-lipoxygenase-activating protein (**FLAP**)/soluble epoxide hydrolase (**sEH**) inhibitor with marked anti-inflammatory efficacy and high target selectivity.

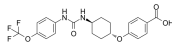


**Purity:** 99.42%  
**Clinical Data:** No Development Reported  
**Size:** 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

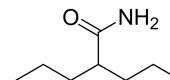
<p><b>Dual FAAH/sEH-IN-1</b></p> <p style="text-align: right;"><b>Cat. No.:</b> HY-144738</p>	<p><b>EC5026</b> (BPN-19186)</p> <p style="text-align: right;"><b>Cat. No.:</b> HY-135653</p>
<p>Dual FAAH/sEH-IN-1 (compound 3) is a high affinity dual sEH (soluble epoxide hydrolase) and FAAH (fatty acid amide hydrolase) inhibitor, with IC<sub>50</sub> values of 9.6 and 7 nM, respectively. Dual FAAH/sEH-IN-1 shows antinociception against the inflammatory phase.</p> <p><b>Purity:</b> &gt;98%</p> <p><b>Clinical Data:</b> No Development Reported</p> <p><b>Size:</b> 1 mg, 5 mg</p>	<p>EC5026 (BPN-19186) is a first-in-class, non-opioid and orally active <b>soluble Epoxide Hydrolase (sEH)</b> inhibitor. EC5026 shows efficacy for inflammatory and neuropathic pain.</p> <p><b>Purity:</b> 98.01%</p> <p><b>Clinical Data:</b> Phase 1</p> <p><b>Size:</b> 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg</p>
<p><b>GSK2256294A</b> (GSK 2256294)</p> <p style="text-align: right;"><b>Cat. No.:</b> HY-19644</p>	<p><b>sEH inhibitor-1</b></p> <p style="text-align: right;"><b>Cat. No.:</b> HY-120494</p>
<p>GSK2256294A is a potent, reversible, tight binding inhibitor of isolated recombinant human sEH (soluble epoxide hydrolase) (IC<sub>50</sub> = 27 pM; t<sub>1/2</sub> = 121 min) and displays potent inhibition against the rat (IC<sub>50</sub> = 61 pM) and murine (IC<sub>50</sub> = 189 pM) orthologs of sEH.</p> <p><b>Purity:</b> 99.53%</p> <p><b>Clinical Data:</b> Phase 2</p> <p><b>Size:</b> 10 mM × 1 mL, 5 mg, 10 mg, 50 mg, 100 mg</p>	<p>sEH inhibitor-1 (compound TCPU ) is a potent and oral active inhibitor of sEH (soluble epoxide hydrolase) with IC<sub>50</sub>s of 0.4 and 5.3 nM in human and murine, respectively.</p> <p><b>Purity:</b> &gt;98%</p> <p><b>Clinical Data:</b> No Development Reported</p> <p><b>Size:</b> 1 mg, 5 mg</p>
<p><b>sEH inhibitor-3</b></p> <p style="text-align: right;"><b>Cat. No.:</b> HY-146643</p>	<p><b>sEH/AChE-IN-4</b></p> <p style="text-align: right;"><b>Cat. No.:</b> HY-145833A</p>
<p>sEH inhibitor-3 (compound 35) is a potent and orally active <b>soluble epoxide hydrolase (sEH)</b> inhibitor with a K<sub>i</sub> of 0.75 nM for human sEH.</p> <p><b>Purity:</b> &gt;98%</p> <p><b>Clinical Data:</b> No Development Reported</p> <p><b>Size:</b> 1 mg, 5 mg</p>	<p>sEH/AChE-IN-4 (compound (+)-15) is a potent and BBB-penetrated dual inhibitor of sEH (soluble epoxide hydrolase) and AChE (acetylcholinesterase), with IC<sub>50</sub> values of 3.1 nM (hsEH), 1660 nM (hAChE), 179 nM (hBChE, human butyrylcholinesterase), 14.5 nM (msEH), and 102...</p> <p><b>Purity:</b> &gt;98%</p> <p><b>Clinical Data:</b> No Development Reported</p> <p><b>Size:</b> 1 mg, 5 mg</p>
<p><b>Soluble epoxide hydrolase inhibitor</b></p> <p style="text-align: right;"><b>Cat. No.:</b> HY-U00453</p>	<p><b>SWE101</b></p> <p style="text-align: right;"><b>Cat. No.:</b> HY-126326</p>
<p>Soluble epoxide hydrolase inhibitor is an inhibitor of <b>soluble epoxide hydrolase</b>, and inhibits human soluble epoxide hydrolase (h-sEH) with pIC<sub>50</sub> of 8.4, extracted from patent WO 2010096722 A1, example 57.</p> <p><b>Purity:</b> &gt;98%</p> <p><b>Clinical Data:</b> No Development Reported</p> <p><b>Size:</b> 1 mg, 5 mg</p>	<p>SWE101 (compound 22 b) is a potent <b>soluble epoxide hydrolase (sEH)-P</b> inhibitor with IC<sub>50</sub>s of 4 μM and 2.8 μM for human and rat sEH-P, respectively. SWE101 does not inhibit neither hydrolase nor phosphatase activity of the mouse sEH.</p> <p><b>Purity:</b> 99.83%</p> <p><b>Clinical Data:</b> No Development Reported</p> <p><b>Size:</b> 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg</p>
<p><b>TPPU</b></p> <p style="text-align: right;"><b>Cat. No.:</b> HY-101294</p>	<p><b>trans-AUCB</b> (t-AUCB)</p> <p style="text-align: right;"><b>Cat. No.:</b> HY-113974</p>
<p>TPPU is a soluble epoxide hydrolase (sEH) inhibitor with IC<sub>50</sub> values of 37 and 3.7 nM for monkey and human sEH, respectively.</p> <p><b>Purity:</b> 99.01%</p> <p><b>Clinical Data:</b> No Development Reported</p> <p><b>Size:</b> 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg</p>	<p>trans-AUCB (t-AUCB) is a potent, orally active and selective <b>soluble epoxide hydrolase (sEH)</b> inhibitor with IC<sub>50</sub>s of 1.3 nM, 8 nM, 8 nM for hsEH, mouse sEH and rat sEH, respectively. trans-AUCB has anti-glioma activity.</p> <p><b>Purity:</b> 98.11%</p> <p><b>Clinical Data:</b> No Development Reported</p> <p><b>Size:</b> 10 mM × 1 mL, 5 mg, 10 mg</p>

**UC-1728****(t-TUCB)****Cat. No.:** HY-114266

UC-1728 is a potent rabbit soluble epoxide hydrolase (sEH) inhibitor, with an  $IC_{50}$  of 2 nM on rabbit liver.

**Purity:** >98%**Clinical Data:** No Development Reported**Size:** 1 mg, 5 mg**Valpromide****Cat. No.:** HY-B2117

Valpromide is an amide derivative of valproic acid and inhibits human epoxide hydrolase.

**Purity:** ≥98.0%**Clinical Data:** Launched**Size:** 10 mM × 1 mL, 10 mg, 50 mg, 100 mg