Sodium channels are integral membrane proteins that form ion channels, conducting sodium ions \( (\text{Na}^+) \) through a cell’s plasma membrane. They are classified according to the trigger that opens the channel for such ions, i.e. either a voltage-change (Voltage-gated, voltage-sensitive, or voltage-dependent sodium channel also called VGSCs or Nav channel) or a binding of a substance (a ligand) to the channel (ligand-gated sodium channels). In excitable cells such as neurons, myocytes, and certain types of glia, sodium channels are responsible for the rising phase of action potentials. Voltage-gated Na\(^+\) channels can exist in any of three distinct states: deactivated (closed), activated (open), or inactivated (closed). Ligand-gated sodium channels are activated by binding of a ligand instead of a change in membrane potential.
# Sodium Channel Inhibitors & Modulators

## (+)-Kavain

**Cat. No.:** HY-81671  
**Bioactivity:** (+)-Kavain, a main kavalactone extracted from *Piper methysticum*, has anticonvulsive properties, attenuating vascular smooth muscle contraction through interactions with voltage-dependent Na⁺ and Ca²⁺ channels. (+)-Kavain...  
**Purity:** 99.98%  
**Clinical Data:** No Development Reported  
**Size:** 10mM x 1mL in DMSO, 5 mg, 10 mg

## A-803467

**Cat. No.:** HY-11079  
**Bioactivity:** A-803467 is a selective Nav1.8 sodium channel blocker with an IC₅₀ of 8 nM; over 100-fold more selective vs. human Nav1.2, 1.3, 1.5 and 1.7.  
**Purity:** 97.51%  
**Clinical Data:** No Development Reported  
**Size:** 10mM x 1mL in DMSO, 10 mg, 50 mg

## AM-2099

**Cat. No.:** HY-100727  
**Bioactivity:** AM-2099 is a potent and selective inhibitor of voltage-gated sodium channel Nav1.7 with an IC₅₀ of 0.16 μM for human Nav1.7.  
**Purity:** 98.0%  
**Clinical Data:** No Development Reported  
**Size:** 10mM x 1mL in DMSO, 2 mg, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

## Amiloride hydrochloride

**Cat. No.:** HY-100727  
**Bioactivity:** Amiloride hydrochloride (MK-870 hydrochloride) is an epithelial sodium channel (ENaC) inhibitor and a competitive inhibitor of Urokinase-type plasminogen activator (uPA).  
**Purity:** 98.0%  
**Clinical Data:** Launched  
**Size:** 10mM x 1mL in DMSO, 100 mg, 500 mg

## Amiloride hydrochloride dihydrate

**Cat. No.:** HY-100727  
**Bioactivity:** Amiloride hydrochloride dihydrate is an inhibitor of both epithelial sodium channel (ENaC) and urokinase-type plasminogen activator receptor (uTPA).  
**Purity:** 98.56%  
**Clinical Data:** Launched  
**Size:** 10mM x 1mL in DMSO, 100 mg

## Amiloride hydrochloride dihydrate

**Cat. No.:** HY-100727  
**Bioactivity:** Amiloride hydrochloride dihydrate is an inhibitor of both epithelial sodium channel (ENaC) and urokinase-type plasminogen activator receptor (uTPA).  
**Purity:** 98.56%  
**Clinical Data:** Launched  
**Size:** 10mM x 1mL in DMSO, 100 mg

## Amiloride hydrochloride

**Cat. No.:** HY-100727  
**Bioactivity:** Amiloride hydrochloride dihydrate is an inhibitor of both epithelial sodium channel (ENaC) and urokinase-type plasminogen activator receptor (uTPA).  
**Purity:** 98.56%  
**Clinical Data:** Launched  
**Size:** 10mM x 1mL in DMSO, 100 mg

## Benzamil hydrochloride

**Cat. No.:** HY-1546A  
**Bioactivity:** Benzamil hydrochloride (Benzylamiloride hydrochloride) is a specific blocker of sodium channel (ENaC).  
**Purity:** 99.46%  
**Clinical Data:** Launched  
**Size:** 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg

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**Sodium Channel Inhibitors & Modulators**

<table>
<thead>
<tr>
<th>Compound</th>
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<th>Bioactivity</th>
<th>Purity</th>
<th>Clinical Data</th>
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<td>HY-80285A</td>
<td>Amiloride hydrochloride (MK-870 hydrochloride) is an epithelial sodium channel (ENaC) inhibitor and a competitive inhibitor of Urokinase-type plasminogen activator (uPA).</td>
<td>98.0%</td>
<td>Launched</td>
<td>10mM x 1mL in DMSO, 100 mg, 500 mg</td>
</tr>
<tr>
<td>Amiloride hydrochloride dihydrate</td>
<td>HY-80285B</td>
<td>Amiloride hydrochloride dihydrate is an inhibitor of both epithelial sodium channel (ENaC) and urokinase-type plasminogen activator receptor (uTPA).</td>
<td>98.56%</td>
<td>Launched</td>
<td>10mM x 1mL in DMSO, 100 mg</td>
</tr>
<tr>
<td>Amiloride hydrochloride</td>
<td>HY-80285</td>
<td>Amiloride hydrochloride dihydrate is an inhibitor of both epithelial sodium channel (ENaC) and urokinase-type plasminogen activator receptor (uTPA).</td>
<td>98.56%</td>
<td>Launched</td>
<td>10mM x 1mL in DMSO, 100 mg</td>
</tr>
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<td>HY-1546A</td>
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<td>99.46%</td>
<td>Launched</td>
<td>10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg</td>
</tr>
</tbody>
</table>

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Benzocaine

Cat. No.: HY-Y0258

Bioactivity:
Benzocaine shares a common receptor with all other local anesthetics (LAs) in the voltage-gated \( \text{Na}^+ \) channel, with an \( IC_{50} \) of 0.8 mM tested with a potential of +30 mV.

Purity: 99.98%
Clinical Data: Launched
Size: 10mM x 1mL in DMSO, 5 g, 10 g

BI 01383298

Cat. No.: HY-124738

Bioactivity:
BI 01383298 is a potent inhibitor of the sodium-citrate co-transporter (SLC13A5) that is highly expressed in the liver \(^1\).

Purity: >98%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

BI-9627

Cat. No.: HY-18071

Bioactivity:
BI-9627 is a sodium–hydrogen exchanger isoform 1 (NHE1) inhibitor with an \( EC_{50} \) of 31 nM \(^1\).

Purity: 99.0%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 5 mg

Bulleyaconitine A

Cat. No.: HY-N0239

Bioactivity:
Bulleyaconitine A is an analgesic and antiinflammatory drug isolated from Aconitum plants; has several potential targets, including voltage-gated Na+ channels.

Purity: >98%
Clinical Data: No Development Reported
Size: 10 mg, 50 mg

Carbamazepine

(CBZ, NSC 169864)

Cat. No.: HY-80246

Bioactivity:
Carbamazepine, a sodium channel blocker, is an anticonvulsant drug. Target: Sodium channel. Carbamazepine inhibits the binding of [\( ^{3} \text{H} \)]batrachotoxinin A 20-α-benzoate (BTX-B) to a receptor site of voltage-sensitive sodium channel with IC50 of 131 μM, to decrease the activation of sodium channel ion flux...

Purity: 99.35%
Clinical Data: Launched
Size: 10mM x 1mL in DMSO, 1 mg, 5 mg, 50 mg, 100 mg

Cariporide

(HOE-642)

Cat. No.: HY-19693

Bioactivity:
Cariporide (HOE-642) is a selective \( \text{Na}^+ / \text{H}^+ \) exchange inhibitor.

Purity: 98.57%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg

Chlorpromazine D6 hydrochloride

Cat. No.: HY-80407AS

Bioactivity:
Chlorpromazine D6 hydrochloride is the deuterium labeled Chlorpromazine. Chlorpromazine is an inhibitor of dopamine receptor, 5-HT receptor, potassium channel, sodium channel.

Purity: 99.0%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 1 mg, 5 mg, 10 mg

Chlorpromazine hydrochloride

Cat. No.: HY-80407A

Bioactivity:
Chlorpromazine Hydrochloride is an antagonist of the dopamine D2, 5HT2A, potassium channel and sodium channel. Chlorpromazine binds with D2 and 5HT2A with \( K_s \) of 363 nM and 8.3 nM, respectively.

Purity: 99.83%
Clinical Data: Launched
Size: 1 g, 5 g

Dibucaine

(Cinchocaine)

Cat. No.: HY-80552

Bioactivity:
Dibucaine is a local anesthetic of the amide type now generally used for surface anesthesia.

Purity: 99.81%
Clinical Data: Launched
Size: 10mM x 1mL in DMSO, 5 g, 10 g

Dibucaine hydrochloride

(Cinchocaine hydrochloride)

Cat. No.: HY-80552A

Bioactivity:
Dibucaine Hydrochloride is a local anesthetic of the amide type now generally used for surface anesthesia.

Purity: 99.67%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 5 g, 10 g
### Dyclonine hydrochloride
(Dylocaine hydrochloride)  
**Cat. No.:** HY-B0364A

**Bioactivity:** Dyclonine is an oral anaesthetic found in Sucrets, an over the counter throat lozenge.

**Purity:** 99.72%
**Clinical Data:** Launched
**Size:** 10mM x 1mL in DMSO, 5 g, 10 g

---

### EIPA hydrochloride
(L593754 hydrochloride; MH 12-43 hydrochloride; Ethylisopropylamiloride hydrochloride)  
**Cat. No.:** HY-101840A

**Bioactivity:** EIPA hydrochloride (L593754 hydrochloride) is a TRPP3 channel inhibitor with an IC₅₀ of 10.5 μM. EIPA also inhibits Na⁺/H⁺-exchanger (NHE) and macropinocytosis.

**Purity:** >98%
**Clinical Data:** No Development Reported
**Size:** 10mM x 1mL in DMSO, 5 mg, 10 mg

---

### Eleclazine hydrochloride
(GS 6615 hydrochloride)  
**Cat. No.:** HY-16738A

**Bioactivity:** Eleclazine hydrochloride is a novel late Na⁺ current inhibitor with an IC₅₀ value of 0.7 μM. Target: Na⁺ current. IC50: 0.7 μM.

**Purity:** 99.47%
**Clinical Data:** Phase 3
**Size:** 10mM x 1mL in DMSO, 1 mg, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

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### Eniporide hydrochloride
(EMD-96785 hydrochloride)  
**Cat. No.:** HY-106150B

**Bioactivity:** Eniporide hydrochloride (EMD-96785 hydrochloride) is a potent Na⁺/H⁺ exchange inhibitor.

**Purity:** 99.31%
**Clinical Data:** No Development Reported
**Size:** 10mM x 1mL in DMSO, 5 mg, 10 mg

---

### Eslicarbazepine acetate
(BIA 2-093)  
**Cat. No.:** HY-B0703

**Bioactivity:** Eslicarbazepine acetate, an antiepileptic drug, is a dual inhibitor of β-Secretase and voltage-gated sodium channel.

**Purity:** 99.98%
**Clinical Data:** Launched
**Size:** 10mM x 1mL in DMSO, 10 mg, 50 mg, 100 mg, 500 mg

---

### Flecainide acetate
(R-818)  
**Cat. No.:** HY-17429

**Bioactivity:** Flecainide acetate (R-818) is a class 1C antiarrhythmic drug especially used for the management of supraventricular arrhythmia; works by blocking the Nav1.5 sodium channel in the heart, causing prolongation of the cardiac action potential.

**Purity:** 99.65%
**Clinical Data:** Launched
**Size:** 10mM x 1mL in Water, 10 mg, 50 mg, 100 mg

---

### Funapide
(TV 45070; XEN402)  
**Cat. No.:** HY-16723

**Bioactivity:** Funapide (TV 45070; XEN402) is a potent Sodium Channel Nav1.7 inhibitor.

**Purity:** >98%
**Clinical Data:** No Development Reported
**Size:** 250 mg, 500 mg

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### Ginsenoside Rg3
(20(S)-Ginsenoside-Rg3; Rg3; S-Ginsenoside Rg3)  
**Cat. No.:** HY-N0603

**Bioactivity:** Ginsenoside Rg3 is the main component of Red ginseng. Ginsenoside Rg3 inhibits Na⁺ and hKv1.4 channel with IC₅₀ of 31.2 ± 4.5 and 32.6 ± 2.2 μM, respectively. Ginsenoside Rg3 also inhibits Aβ levels, NF-κB activity, and COX-2.

**Purity:** 98.0%
**Clinical Data:** Phase 2
**Size:** 10mM x 1mL in DMSO, 10 mg, 50 mg, 100 mg
### GNE-131
**Cat. No.: HY-112279**

**Bioactivity:** GNE-131 is a potent and selective inhibitor of human sodium channel Na\text{V}1.7, with an IC\text{50} of 3 nM.

**Purity:** >98%

**Clinical Data:** No Development Reported

**Size:** 10 mM x 1 mL in DMSO, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

### GS967
**Cat. No.: HY-12593**

**Bioactivity:** GS967 (GS-458967) is a potent and selective inhibitor of cardiac late sodium current (late I_{\text{Na}}) with IC\text{50} values of 0.13 and 0.21 μM for ventricular myocytes and isolated hearts, respectively.

**Purity:** 99.96%

**Clinical Data:** No Development Reported

**Size:** 10 mM x 1 mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg, 200 mg

### ICA-121431
**Cat. No.: HY-16787**

**Bioactivity:** ICA-121431 is a nanomolar potent small molecule Nav1.7 channel inhibitor with IC50 of 19 nM for rat Nav1.7, but no inhibition on human, monkey and dog Nav1.7.

**Purity:** 98.29%

**Clinical Data:** No Development Reported

**Size:** 10 mM x 1 mL in DMSO, 10 mg, 50 mg

### Lamotrigine
**Cat. No.: HY-B0495**

**Bioactivity:** Lamotrigine (LTG; BW430C) is a novel anticonvulsant drug for inhibition of 5-HT and sodium channel Target: Sodium Channel

Lamotrigine stabilises presynaptic neuronal membranes by blockade of voltage-dependent sodium channels, thus preventing the release of excitatory neurotransmitters, particularly...

**Purity:** 99.94%

**Clinical Data:** No Development Reported

**Size:** 10 mM x 1 mL in DMSO, 1 g, 5 g

### Lidocaine
**Cat. No.: HY-B0185**

**Bioactivity:**

Lidocaine, an amide local anesthetic, has anti-inflammatory properties in vitro and in vivo, possibly due to an attenuation of pro-inflammatory cytokines, intracellular adhesion molecule-1 (ICAM-1), and reduction of neutrophils influx.

**Purity:** 99.52%

**Clinical Data:** No Development Reported

**Size:** 10 mM x 1 mL in DMSO, 1 g, 10 g

### Lidocaine hydrochloride
**Cat. No.: HY-B0185A**

**Bioactivity:**

Lidocaine HCl salt, an amide local anesthetic, has anti-inflammatory properties in vitro and in vivo, possibly due to an attenuation of pro-inflammatory cytokines, intracellular adhesion molecule-1 (ICAM-1), and reduction of neutrophils influx.

**Purity:** 99.95%

**Clinical Data:** No Development Reported

**Size:** 10 mM x 1 mL in Water, 5 g, 10 g

### Mepivacaine hydrochloride
**Cat. No.: HY-B0517A**

**Bioactivity:**

Mepivacaine is a tertiary amine used as a local anesthetic.

**Purity:** 99.83%

**Clinical Data:** No Development Reported

**Size:** 10 mM x 1 mL in DMSO, 1 g, 5 g

### Meticrane
**Cat. No.: HY-B0908**

**Bioactivity:**

Meticrane is a diuretic. Meticrane inhibits the reabsorption of sodium and chloride ions in the distal convoluted tubule. Meticrane is used to treat essential hypertension.

**Purity:** 98.79%

**Clinical Data:** No Development Reported

**Size:** 10 mM x 1 mL in DMSO, 100 mg

### Metaflumizone
**Cat. No.: HY-116448**

**Bioactivity:** Metaflumizone is a semicarbazone insecticide, acts as a potent sodium channel blocker [1].

**Purity:** 96.09%

**Clinical Data:** No Development Reported

**Size:** 10 mM x 1 mL in DMSO, 100 mg, 500 mg

### Mexiletine hydrochloride
**Cat. No.: HY-A0093**

**Bioactivity:** Mexiletine (hydrochloride) (KOE-1173 (hydrochloride)) is a non-selective voltage-gated sodium channel blocker; Class IB anti-arrhythmic compound.

**Purity:** 99.96%

**Clinical Data:** No Development Reported

**Size:** 10 mM x 1 mL in DMSO, 100 mg, 500 mg
### Moricizine
**Cat. No.: HY-80615**

**Bioactivity:** Moricizine is an antiarrhythmia agent used primarily for ventricular rhythm disturbances.

**Purity:** >98%

**Clinical Data:** Launched

**Size:** 10 mg, 50 mg, 100 mg

---

### Myomodulin
**Cat. No.: HY-P0268**

**Bioactivity:** Myomodulin is a neuropeptide present in molluscs, insects, and gastropods.

**Purity:** >98%

**Clinical Data:** No Development Reported

**Size:** 1 mg, 5 mg, 10 mg

---

### Nav1.7 inhibitor
**Cat. No.: HY-13985**

**Bioactivity:** Nav1.7 inhibitor is a potent Nav1.7 inhibitor. IC50 value: Target: Nav1.7 Preparation of sulfonamide derivatives as Nav1.7 inhibitors By Brown, Alan Daniel; Rawson, David James; Storer, Robert Ian; Swain, Nigel Alan From PCT Int. Appl. (2012), WO 2012007868 A2 20120119.

**Purity:** 99.87%

**Clinical Data:** No Development Reported

**Size:** 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg

---

### NaV1.7 inhibitor-1
**Cat. No.: HY-119934**

**Bioactivity:** NaV1.7 inhibitor-1 is an efficacious voltage-gated sodium channel (Nav1.7) inhibitor with an IC50 of 0.6 nM for hNav1.7, exhibits 80-fold selectivity versus hNav1.5.[1]

**Purity:** >98%

**Clinical Data:** No Development Reported

**Size:** 500 mg, 100 mg, 250 mg

---

### Nav1.7-IN-2
**Cat. No.: HY-19366**

**Bioactivity:** Nav1.7-IN-2 is an inhibitor of voltage-gated sodium channels (Nav), in particular Nav 1.7, with IC50 of 80 nM.

**Purity:** >98%

**Clinical Data:** No Development Reported

**Size:** 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg

---

### Nav1.7-IN-3
**Cat. No.: HY-101789**

**Bioactivity:** Nav1.7-IN-3 is a selective, orally bioavailable voltage-gated sodium channel Nav1.7 inhibitor with an IC50 of 8 nM. Pain relief. Limited CNS penetration.[1]

**Purity:** >98%

**Clinical Data:** No Development Reported

**Size:** 250 mg, 500 mg

---

### NHE3-IN-1
**Cat. No.: HY-100325**

**Bioactivity:** NHE3-IN-1 is a sodium/proton exchanger type 3 (NHE-3) inhibitor extracted from patent WO 2011019784 A1.

**Purity:** >98%

**Clinical Data:** No Development Reported

**Size:** 1 mg, 5 mg, 10 mg

---

### Nicainoprol
**Cat. No.: HY-100572**

**Bioactivity:** Nicainoprol is a fast- sodium-channel blocking drug, which is a potent antiarrhythmic agent.

**Purity:** 99.48%

**Clinical Data:** No Development Reported

**Size:** 10mM x 1mL in DMSO, 1 mg, 5 mg

---

### Oxcarbazepine
**Cat. No.: HY-80114**

**Bioactivity:** Oxcarbazepine (GP 47680) inhibits the binding of [3H]BTX to sodium channels with IC50 of 160 μM and also inhibits the influx of 22Na+ into rat brain synaptosomes with IC50 about 100 μM.

**Purity:** 99.82%

**Clinical Data:** Launched

**Size:** 10mM x 1mL in DMSO, 10 mg, 50 mg

---

### PF 04531083
**Cat. No.: HY-105283**

**Bioactivity:** PF 04531083 is a selective NaV1.8 blocker, and used for the research of neuropathic/inflammatory pain.

**Purity:** >98%

**Clinical Data:** No Development Reported

**Size:** 250 mg, 500 mg
Bioactivity: PF 05089771 is a Nav1.7 channel blocker extracted from patent WO/2010/079443 A1, compound example 788, has an IC50 of 8.6 nM.
Purity: 99.32%
Clinical Data: Phase 2
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg

Bioactivity: PF 01247324 is a selective and orally bioavailable Na\textsubscript{1.8} channel blocker with an IC50 of 196 nM for recombinant human Na\textsubscript{1.8} channel.
Purity: 99.42%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

Bioactivity: PF-05241328 is a potent and selective inhibitor of human Nav1.7 voltage-dependent sodium channels (Nav1.7), with an IC50 of 31 nM.
Purity: >98%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg, 50 mg

Bioactivity: PF-06305591 is a potent and highly selective voltage gated sodium channel Na\textsubscript{V1.8} blocker, with an IC50 of 15 nM. An excellent preclinical in vitro ADME and safety profile [1].
Purity: 99.0%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 5 mg

Bioactivity: PF-06869206 is an orally bioavailable selective inhibitor of the sodium-phosphate cotransporter NaPi2a (SLC34A1) with an IC50 of 380 nM.
Purity: >98%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 25 mg, 50 mg

Bioactivity: Phenyltoin is an inactive voltage-gated sodium channel stabilizer.
Purity: 99.91%
Clinical Data: Launched
Size: 10mM x 1mL in DMSO, 1 g, 5 g

Bioactivity: Propafenone D7 hydrochloride (SA-79 (D7 hydrochloride)) is the deuterium labeled Propafenone, which is a classic anti-arrhythmic medication.
Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg, 10 mg

Bioactivity: Propafenone hydrochloride (SA-79 (hydrochloride)) is a class of anti-arrhythmic medication, which treats illnesses associated with rapid heart beats such as atrial and ventricular arrhythmias.
Purity: 99.70%
Clinical Data: Launched
Size: 10mM x 1mL in DMSO, 1 g, 5 g

Bioactivity: Proparacaine Hydrochloride is a voltage-gated sodium channels antagonist with ED50 of 3.4 mM.
Purity: 99.56%
Clinical Data: Launched
Size: 10mM x 1mL in DMSO, 100 mg
### Propoxycaine hydrochloride

**Cat. No.: HY-81243**

**Bioactivity:** Propoxycaine hydrochloride is the hydrochloride salt form of Propoxycaine, a para-aminobenzoic acid ester with local anesthetic activity. Target: sodium channel. Propoxycaine binds to and inhibits voltage-gated sodium channels, thereby inhibiting the ionic flux required for the initiation and propagation of action potentials.

**Purity:** 99.98%

**Clinical Data:** Launched

**Size:**
- 10mM x 1mL in DMSO, 50 mg

---

### Ranolazine

**Cat. No.: HY-B0280**

**Bioactivity:** Ranolazine is an antianginal medication.

**Purity:** 98.38%

**Clinical Data:** Launched

**Size:**
- 10mM x 1mL in DMSO, 10 mg, 200 mg, 500 mg

---

### Ranolazine dihydrochloride

**(CVT 303 (dihydrochloride); RS 43285)**

**Cat. No.: HY-17401**

**Bioactivity:** Ranolazine dihydrochloride (RS-43285) is an antianginal agent with antiarrhythmic properties that achieves its effects via a novel mechanism of action (inhibition of the late phase of the inward sodium current), without affecting heart rate or blood pressure (BP). IC50 value. Target: sodium-dependent calcium...

**Purity:** 99.92%

**Clinical Data:** Launched

**Size:**
- 10mM x 1mL in Water, 100 mg, 200 mg, 500 mg, 1 g, 5 g

---

### Raxatrigine

**(CVT 1014802; CVT 303 (dihydrochloride); RS 43285)**

**Cat. No.: HY-12796**

**Bioactivity:** Raxatrigine (CVT-1014802) is a novel small molecule state-dependent sodium channel blocker; Nav1.7 sodium channel inhibitor.

**Purity:** 99.47%

**Clinical Data:** Phase 2

**Size:**
- 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg

---

### Raxatrigine hydrochloride

**(CVT 303 (hydrochloride); RS 43285)**

**Cat. No.: HY-12796A**

**Bioactivity:** Raxatrigine hydrochloride (CVT-1014802 hydrochloride) is a novel small molecule state-dependent sodium channel blocker; Nav1.7 sodium channel inhibitor.

**Purity:** 98.69%

**Clinical Data:** Phase 2

**Size:**
- 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg

---

### Riluzole

**(PK 26124)**

**Cat. No.: HY-B0211**

**Bioactivity:** Riluzole is an anticonvulsant drug and belongs to the family of use-dependent Na⁺ channel blocker which can also inhibit GABA uptake with an IC₅₀ of 43 μM.

**Purity:** 99.38%

**Clinical Data:** Launched

**Size:**
- 10mM x 1mL in DMSO, 50 mg, 100 mg, 200 mg, 500 mg, 1 g

---

### Rimeporide

**(EMD-87580)**

**Cat. No.: HY-19273**

**Bioactivity:** Rimeporide (EMD-87580) is a potent and selective inhibitor of the Na⁺/H⁺ exchanger (NHE-1).

**Purity:** 98.77%

**Clinical Data:** No Development Reported

**Size:**
- 10mM x 1mL in DMSO, 1 mg, 5 mg

---

### Rimeporide hydrochloride

**(EMD-87580 hydrochloride)**

**Cat. No.: HY-19273A**

**Bioactivity:** Rimeporide hydrochloride is a potent and selective inhibitor of the Na⁺/H⁺ exchanger (NHE-1).

**Purity:** >98%

**Clinical Data:** No Development Reported

**Size:**
- 1 mg, 5 mg

---

### Ropivacaine hydrochloride monohydrate

**Cat. No.: HY-80563A**

**Bioactivity:** Ropivacaine hydrochloride monohydrate is a non-steroidal agent and blocks impulse conduction in nerve fibres through inhibiting sodium ion influx reversibly. Target: Sodium Channel. Ropivacaine is a new long-acting local anesthetic, with vasoconstrictive properties. Ropivacaine given epidurally...

**Purity:** 99.98%

**Clinical Data:** Launched

**Size:**
- 10mM x 1mL in Water, 10 mg, 50 mg
| **Sipatrigine**  
*Cat. No.: HY-108335* | **Sodium Channel inhibitor 1**  
*Cat. No.: HY-15736* |
<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td><strong>Bioactivity:</strong> Sipatrigine, a neuroprotective agent, is a glutamate release inhibitor, voltage-dependent sodium channel and calcium channel inhibitor, penetrating the central nervous system. Has potential to treat focal cerebral ischemia and stroke.</td>
<td><strong>Bioactivity:</strong> Sodium Channel inhibitor 1, one of 3-Oxoisoindoline-1-carboxamides, is a novel and selective voltage-gated sodium channel for pain treatment.</td>
</tr>
<tr>
<td><strong>Purity:</strong> 99.0%</td>
<td><strong>Purity:</strong> &gt;98%</td>
</tr>
<tr>
<td><strong>Clinical Data:</strong> No Development Reported</td>
<td><strong>Clinical Data:</strong> No Development Reported</td>
</tr>
<tr>
<td><strong>Size:</strong> 10mM x 1mL in DMSO, 5 mg</td>
<td><strong>Size:</strong> 5 mg, 10 mg, 50 mg, 100 mg</td>
</tr>
</tbody>
</table>

| **Sodium Channel inhibitor 2**  
*Cat. No.: HY-100257* | **Sodium ionophore III**  
*Cat. No.: HY-101109* |
<table>
<thead>
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<tbody>
<tr>
<td><strong>Bioactivity:</strong> Sodium Channel inhibitor 2 is a sodium channel blocker extracted from patent WO 2004011439 A2, compound 3c.</td>
<td><strong>Bioactivity:</strong> Sodium ionophore III (ETH2120) is a Na⁺ ionophore suitable for the assay of sodium activity in blood, plasma, serum, etc.</td>
</tr>
<tr>
<td><strong>Purity:</strong> &gt;98%</td>
<td><strong>Purity:</strong> 98.07%</td>
</tr>
<tr>
<td><strong>Clinical Data:</strong> No Development Reported</td>
<td><strong>Clinical Data:</strong> No Development Reported</td>
</tr>
<tr>
<td><strong>Size:</strong> 1 mg, 5 mg, 10 mg</td>
<td><strong>Size:</strong> 10 mg, 50 mg, 100 mg, 200 mg</td>
</tr>
</tbody>
</table>

| **Tenapanor**  
*(AZD1722; RDX5791)* | **Tetracaine**  
*(Amethocaine)* |
<table>
<thead>
<tr>
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<tbody>
<tr>
<td><strong>Cat. No.: HY-15991</strong></td>
<td><strong>Cat. No.: HY-A0079</strong></td>
</tr>
<tr>
<td><strong>Bioactivity:</strong> Tenapanor is an inhibitor of the Na⁺/H⁺ exchanger NHE3 with IC₅₀ values of 5 and 10 nM against human and Rat NHE3, respectively.</td>
<td><strong>Bioactivity:</strong> Tetracaine is a topical local anesthetic for the eyes; works by interfering with entry of sodium ions into nerve cells.</td>
</tr>
<tr>
<td><strong>Purity:</strong> 98.80%</td>
<td><strong>Purity:</strong> 98.03%</td>
</tr>
<tr>
<td><strong>Clinical Data:</strong> Phase 3</td>
<td><strong>Clinical Data:</strong> Launched</td>
</tr>
<tr>
<td><strong>Size:</strong> 10mM x 1mL in DMSO, 2 mg, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg</td>
<td><strong>Size:</strong> 10mM x 1mL in DMSO, 1 g, 5 g</td>
</tr>
</tbody>
</table>

| **Triamterene**  
*Cat. No.: HY-80575* | **Triamterene D5**  
*Cat. No.: HY-80575S* |
<table>
<thead>
<tr>
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<tbody>
<tr>
<td><strong>Bioactivity:</strong> Triamterene blocks epithelial Na⁺ channel (ENaC) in a voltage-dependent manner, which is used as a mild diuretic.</td>
<td><strong>Bioactivity:</strong> Triamterene D5 is deuterium labeled Triamterene, which can block epithelial Na⁺ channel (ENaC) in a voltage-dependent manner, which is used as a mild diuretic.</td>
</tr>
<tr>
<td><strong>Purity:</strong> 99.17%</td>
<td><strong>Purity:</strong> &gt;98%</td>
</tr>
<tr>
<td><strong>Clinical Data:</strong> Launched</td>
<td><strong>Clinical Data:</strong> No Development Reported</td>
</tr>
<tr>
<td><strong>Size:</strong> 10mM x 1mL in DMSO, 100 mg, 500 mg</td>
<td><strong>Size:</strong> 5 mg, 10 mg</td>
</tr>
</tbody>
</table>

| **Trichlormethiazide**  
*Cat. No.: HY-80235* | **Vinpocetine**  
*(Ethyl apovincaminate)* |
<table>
<thead>
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<tbody>
<tr>
<td><strong>Bioactivity:</strong> Trichlormethiazide is a thiazide diuretic with properties similar to those of hydrochlorothiazide.</td>
<td><strong>Bioactivity:</strong> Vinpocetine(Cavinton; Ethyl apovincaminate) is a selective for PDE1 (IC₅₀ = 21 μM). Also blocks voltage-gated Na⁺ channels. IC₅₀ value: Target: PDE1; Na⁺ channel</td>
</tr>
<tr>
<td><strong>Purity:</strong> 98.67%</td>
<td><strong>Purity:</strong> 99.82%</td>
</tr>
<tr>
<td><strong>Clinical Data:</strong> Launched</td>
<td><strong>Clinical Data:</strong> Launched</td>
</tr>
<tr>
<td><strong>Size:</strong> 10mM x 1mL in DMSO, 1 g, 5 g</td>
<td><strong>Size:</strong> 10mM x 1mL in DMSO, 50 mg, 100 mg, 200 mg, 500 mg</td>
</tr>
</tbody>
</table>
**XEN907**

**Bioactivity:** XEN907 is a novel spirooxindole NaV1.7 blocker, inhibits hNaV1.7 with IC50 of 3 nM.

**Purity:** >98%
**Clinical Data:** No Development Reported
**Size:** 10mM x 1mL in DMSO, 5 mg

**YM758**

**Bioactivity:** YM758 is a “funny” I<sub>f</sub> current channel (I<sub>f</sub> channel) inhibitor.

**Purity:** >98%
**Clinical Data:** No Development Reported
**Size:** 1 mg, 5 mg, 10 mg, 20 mg

**Zonisamide**

**(AD 810; CI 912)**

**Bioactivity:** Zonisamide is a 1,2 benzisoxazole derivative and the first agent of this chemical class to be developed as an antiepileptic drug.

**Purity:** 99.72%
**Clinical Data:** Launched
**Size:** 10mM x 1mL in DMSO, 200 mg, 500 mg

**Zonisamide sodium**

**(AD 810 sodium; CI 912 sodium)**

**Bioactivity:** Zonisamide sodium is a 1,2 benzisoxazole derivative and the first agent of this chemical class to be developed as an antiepileptic drug.

**Purity:** >98%
**Clinical Data:** Launched
**Size:** 200 mg, 500 mg