Na+/K+ ATPase

Sodium potassium pump

Na^+/K^+ ATPase (Sodium potassium pump) is a transmembrane protein complex found in all higher eukaryotes acting as a key energy-consuming pump maintaining ionic and osmotic balance in cells. Na^+/K^+ ATPase is an emerging cancer target that merits further investigation.

The constant activity of the Na^+/K^+-ATPase (NKA, or Na^+ pump) is essential for re-establishing and maintaining this gradient. In cardiac and vascular smooth muscle the principal isoforms of the NKA are α1 and α2 and their physiological role is controlled both by their unique and independent signalling pathways, and their discrete subcellular distribution.

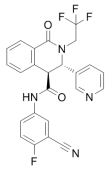
Na+/K+ ATPase Inhibitors, Antagonists, Activators & Modulators

(+)-SJ733

(SJ000557733)

Cat. No.: HY-19556

(+)-SJ733 is an **anti-malaria** agent which can also inhibit **Na^+-ATPase PfATP4**.

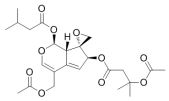


Purity: 99.45%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 1 mg, 5 mg, 10 mg, 50 mg, 100 mg

Acevaltrate

Cat. No.: HY-N2070

Acevaltrate, isolated from Valeriana glechomifolia, inhibits the **Na^+/K^+-ATPase** activity in the rat kidney and brain hemispheres with **IC_{50}**s of 22.8±1.1 μM and 42.3±1.0 μM, respectively.

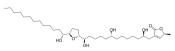


Purity: 99.56%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

Annonacin

Cat. No.: HY-N2877

Annonacin is an Acetogenin and promotes cytotoxicity via a pathway inhibiting the mitochondrial complex. Annonacin is the active agent found in Graviola leaf extract to act as an inhibitor of **sodium/potassium (NKA)** and **sarcoplasmic reticulum (SERCA) ATPase pumps**.

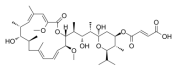


Purity: >98%
Clinical Data: No Development Reported
Size: 5 mg

Bafilomycin C1

Cat. No.: HY-130173

Bafilomycin C1 is a macrolide antibiotic isolated from Streptomyces sp. Bafilomycin C1 is a potent, specific and reversible inhibitor of **vacuolar-type H^+-ATPases (V-ATPases)**. Bafilomycin C1 inhibits growth of gram-positive **bacteria** and **fungi**.

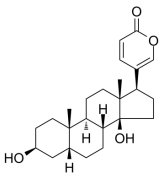


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

Bufalin

Cat. No.: HY-N0877

Bufalin is an active component isolated from Chan Su, acts as a potent **Na^+/K^+-ATPase** inhibitor, binds to the subunit α1, α2 and α3, with **K_d** of 42.5, 45 and 40 nM, respectively. Anti-cancer activity.



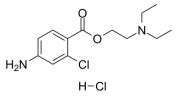
Purity: 98.85%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg

Chloroprocaine hydrochloride

(2-Chloroprocaine hydrochloride)

Cat. No.: HY-B1604

Chloroprocaine hydrochloride (2-Chloroprocaine hydrochloride) is a potent inhibitor of **Na,K-ATPase** activity with an **IC_{50}** of 13 mM. Chloroprocaine hydrochloride blocks peripheral nerve.

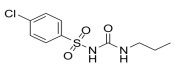


Purity: 99.18%
Clinical Data: Launched
Size: 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 100 mg

Chlorpropamide

Cat. No.: HY-B1429

Chlorpropamide is an oral antihyperglycemic agent used for the treatment of non-insulin-dependent diabetes mellitus (NIDDM). Target: Chlorpropamide belongs to the sulfonylurea class of insulin secretagogues, which act by stimulating β cells of the pancreas to release insulin.

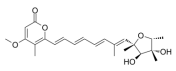


Purity: 99.24%
Clinical Data: Launched
Size: 10 mM × 1 mL, 100 mg

Citreoviridin

Cat. No.: HY-N6745

Citreoviridin, a toxin from Penicillium citreoviride NRRL 2579, inhibits brain synaptosomal **Na^+/K^+-ATPase** whereas in microsomes, both **Na^+/K^+-ATPase** and **Mg^{2+}-ATPase** activities are significantly stimulated in a dose-dependent manner.



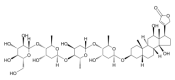
Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

Deslanoside

(Deacetyllanatoside C; Desacetyllanatoside C)

Cat. No.: HY-A0154

Deslanoside (Desacetyllanatoside C) is a rapidly acting cardiac glycoside used to treat congestive heart failure and supraventricular arrhythmias due to reentry mechanisms, and to control ventricular rate in the treatment of chronic atrial fibrillation.

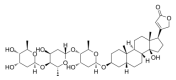


Purity: 99.76%
Clinical Data: Launched
Size: 10 mM × 1 mL, 5 mg, 10 mg

Digitoxin

Cat. No.: HY-B1357

Digitoxin is an effective Na+/K+-ATPase inhibitor, the EC50 value of Digitoxin is 0.78 μM.



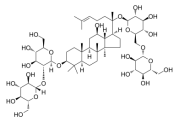
Purity: 99.18%
Clinical Data: Launched
Size: 10 mM × 1 mL, 5 mg

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** .



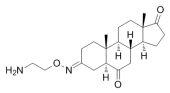
Purity: >98.0%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

Istaroxime

(PST2744)

Cat. No.: HY-15718

Istaroxime (PST2744) is a potent inhibitor of **Na⁺,K⁺-ATPase** with **IC_{50}** of 0.11 μM.



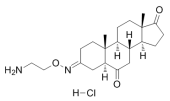
Purity: >98%
Clinical Data: Phase 2
Size: 1 mg, 5 mg

Istaroxime hydrochloride

(PST2744 hydrochloride)

Cat. No.: HY-15718A

Istaroxime hydrochloride is a **Na⁺/K⁺-ATPase** inhibitor (**IC_{50}**=0.11 μM) and a sarcoplasmic/endoplasmic reticulum calcium ATPase 2 (**SERCA 2**) activator.

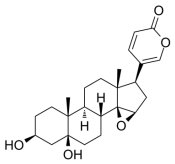


Purity: 99.32%
Clinical Data: Phase 2
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg, 100 mg

Marinobufogenin

Cat. No.: HY-N6574

Marinobufogenin is a strong inhibitor of **Na⁺/K⁺ ATPase** that has been identified in mammalian plasma.

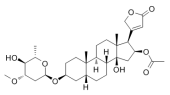


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

Oleandrin

Cat. No.: HY-13719

Oleandrin inhibits the **Na⁺, K⁺-ATPase** activity with an **IC_{50}** of 620 nM. Oleandrin induces apoptosis via activating endoplasmic reticulum stress.



Purity: 99.84%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 2 mg, 5 mg, 10 mg, 25 mg

Oleic acid

(9-cis-Octadecenoic acid; 9Z-Octadecenoic acid)

Cat. No.: HY-N1446

Oleic acid is an abundant monounsaturated fatty acid. Oleic acid is a Na⁺/K⁺ ATPase activator.

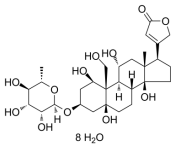
Purity: >98.0%
Clinical Data: Launched
Size: 10 mM × 1 mL, 1 mg

Ouabain Octahydrate

(Acocantherine; G-Strophanthin)

Cat. No.: HY-B0542

Ouabain Octahydrate is an inhibitor of **Na⁺/K⁺-ATPase**, used for the treatment of congestive heart failure.



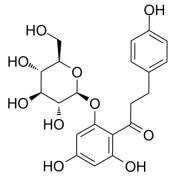
Purity: 99.96%
Clinical Data: Launched
Size: 10 mM × 1 mL, 100 mg

Phlorizin

(Floridzin; NSC 2833)

Cat. No.: HY-N0143

Phlorizin is a non-selective **SGLT** inhibitor with **K_i**s of 300 and 39 nM for **hSGLT1** and **hSGLT2**, respectively. Phlorizin is also a **Na⁺/K⁺-ATPase** inhibitor.

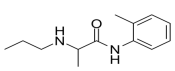


Purity: 98.79%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 500 mg, 1 g, 5 g

Prilocaine

Cat. No.: HY-B0137

Prilocaine is an amino amide type compound that used for anesthesia. Target: Others Prilocaine is an amino amide type compound that used for anesthesia. In its injectable form (trade name Citanest), it is often used in dentistry.

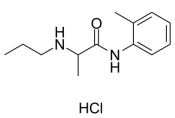


Purity: 99.03%
Clinical Data: Launched
Size: 10 mM × 1 mL, 50 mg, 100 mg

Prilocaine hydrochloride

Cat. No.: HY-B0137A

Prilocaine hydrochloride is an amino amide type compound that used for anesthesia. Target: Others Prilocaine is an amino amide type compound that used for anesthesia and first be prepared by Claes Tegner and Nils L fgren.

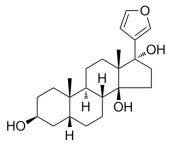


Purity: >98%
Clinical Data: Launched
Size: 1 mg, 5 mg

Rostafuroxin

(PST 2238) **Cat. No.:** HY-12283

Rostafuroxin(PST 2238) is a antihypertensive compound; Na,K-ATPase antognist;displaced [3H]ouabain from the dogkidney Na+,K+-ATPase with IC50 of 1.5 nM.

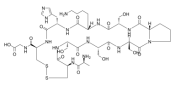


Purity: 96.70%
Clinical Data: Phase 2
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg, 100 mg

Transdermal Peptide

(TD 1 (peptide)) **Cat. No.:** HY-P1565

Transdermal Peptide (TD 1 peptide) is a 11-amino acid peptide, binds to**Na^+/K^+-ATPase beta-subunit (ATP1B1)**, and mainly interacts with the C-terminus of **ATP1B1**. Transdermal Peptide can enhance the transdermal delivery of many macromolecules.

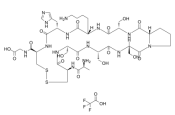


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

Transdermal Peptide TFA

(TD 1 (peptide) (TFA)) **Cat. No.:** HY-P1565A

Transdermal Peptide TFA (TD 1 peptide TFA) is a 11-amino acid peptide, binds to **Na^+/K^+-ATPase beta-subunit (ATP1B1)**, and mainly interacts with the C-terminus of **ATP1B1**. Transdermal Peptide TFA can enhance the transdermal delivery of many macromolecules.



Purity: 98.45%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 1 mg, 5 mg, 10 mg