Carbonic Anhydrase

Carbonate dehydratase

Carbonic anhydrase is a zinc-containing enzyme that catalyzes the reversible hydration of carbon dioxide: $CO_2+H_2O<-->HCO_3^-+H^+$. The enzyme is the target for drugs, such as Acetazolamide, Methazolamide, and Dichlorphenamide, for the treatment of glaucoma. There are three evolutionarily unrelated CA families, designated alpha, beta, and gamma. All known CAs from the animal kingdom are of the alpha type. There are seven mammalian CA isozymes with different tissue distributions and intracellular locations, CA I-VII.

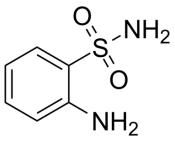
Carbonic anhydrase is one of the core enzyme in organism, which involves in osmoregulation, ionic regulation, acid-base regulation and other physiological and biochemical process.

Carbonic Anhydrase Inhibitors

2-Aminobenzenesulfonamide
(Orthanilamide)

Cat. No.: HY-B2147

2-Aminobenzenesulfonamide is a **carbonic anhydrase IX** inhibitor.

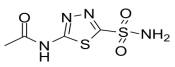


Purity: 99.88%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 100 mg

Acetazolamide

Cat. No.: HY-B0782

Acetazolamide is a **carbonic anhydrase** (**CA**) **IX** inhibitor with an **IC_{50}** of 30 nM for **hCA IX**. Diuretic effects.

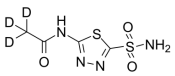


Purity: 99.97%
Clinical Data: Launched
Size: 10 mM × 1 mL, 500 mg, 1 g, 5 g

Acetazolamide D3

Cat. No.: HY-B0782S

Acetazolamide D3 is deuterium labeled Acetazolamide, which is a potent carbonic anhydrase (CA) inhibitor.

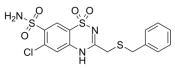


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

Benzthiazide

Cat. No.: HY-B1424

Benzthiazide is a long-acting diuretic and a hypertension agent. Benzthiazide is an inhibitor of **carbonic anhydrase 9 (CA9)**, with **K_i**s of 8.0, 8.8 and 10 nM for CA9, CA2 and CA1, respectively. Benzthiazide also suppresses proliferation of cancer cells.

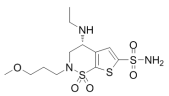


Purity: 99.40%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 100 mg, 500 mg

Brinzolamide
(AL-4862)

Cat. No.: HY-B0588

Brinzolamide(AL 4862) is a potent carbonic anhydrase II inhibitor with IC50 of 3.19 nM.

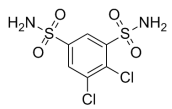


Purity: 99.33%
Clinical Data: Launched
Size: 10 mM × 1 mL, 10 mg, 50 mg, 100 mg

Dichlorphenamide
(Diclofenamide)

Cat. No.: HY-B0397

Dichlorphenamide(Diclofenamide) is a carbonic anhydrase inhibitor that is used in the treatment of glaucoma.

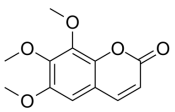


Purity: 98.39%
Clinical Data: Launched
Size: 10 mM × 1 mL, 10 mg, 50 mg, 100 mg

Dimethylfraxetin
(6,7,8-Trimethoxycoumarin; Fraxetin dimethyl ether)

Cat. No.: HY-N0085

Dimethylfraxetin is a **Carbonic anhydrase** inhibitor, with a **K_i** value of 0.0097 μM.



Purity: 99.97%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 25 mg

Dorzolamide
(L671152; MK507)

Cat. No.: HY-B0109

Dorzolamide (L671152) is a potent **carbonic anhydrase II** inhibitor, with **IC_{50}** values of 0.18 nM and 600 nM for red blood cell CA-II and CA-I respectively. Dorzolamide possesses anti-tumor activity.
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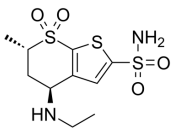

Purity: >98%
Clinical Data: Launched
Size: 1 mg, 5 mg

Dorzolamide hydrochloride
(L671152 hydrochloride; MK507 hydrochloride)

Cat. No.: HY-B0109A

Dorzolamide (L671152) hydrochloride is a potent **carbonic anhydrase II** inhibitor, with **IC_{50}** values of 0.18 nM and 600 nM for red blood cell CA-II and CA-I respectively. Dorzolamide possesses anti-tumor activity.
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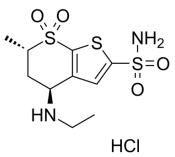
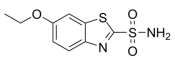


Purity: 99.91%
Clinical Data: Launched
Size: 10 mM × 1 mL, 10 mg, 50 mg, 100 mg

Ethoxzolamide
(Redupresin; L-643786; PNU-4191)

Cat. No.: HY-B1480

Ethoxzolamide is a **carbonic anhydrase** inhibitor with **K_i** of 1 nM.



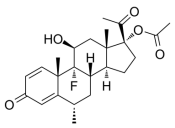
Purity: 99.43%
Clinical Data: Launched
Size: 10 mM × 1 mL, 100 mg

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

Fluorometholone acetate

Cat. No.: HY-B1471

Fluorometholone acetate is a synthetic glucocorticoid corticosteroid and a corticosteroid ester. Fluorometholone acetate potently inhibits **carbonic anhydrase (CA)** with IC_{50}s of 2.18 μM and 17.5 μM for **hCA-I** and **hCA-II**, respectively.

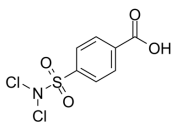


Purity: >98.0%
Clinical Data: Launched
Size: 10 mM × 1 mL, 100 mg

Halazone

Cat. No.: HY-B1386

Halazone is an atypical antimicrobial sulfonamide derivative and a **carbonic anhydrase II** inhibitor with a K_d value of 1.45 μM. Halazone protects **sodium channels** from inactivation. Halazone is widely used for disinfection of drinking water.



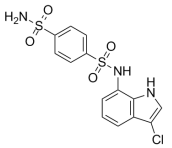
Purity: >90.0%
Clinical Data: Launched
Size: 50 mg, 100 mg, 250 mg, 500 mg

Indisulam

(E 7070)

Cat. No.: HY-13650

Indisulam (E 7070) is a **carbonic anhydrase** inhibitor with anticancer activity. Indisulam (E 7070) is a sulfonamide agent that targets the **G1 phase** of the cell cycle.



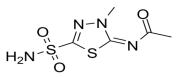
Purity: 99.35%
Clinical Data: Phase 2
Size: 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg

Methazolamide

(L584601)

Cat. No.: HY-B0553

Methazolamide (L584601) is a sulfonamide derivative used as a **carbonic anhydrase** inhibitor with a K_i of 14 nM for human carbonic anhydrase II.

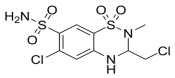


Purity: 99.80%
Clinical Data: Launched
Size: 10 mM × 1 mL, 100 mg, 500 mg, 1 g, 5 g

Methyclothiazide

Cat. No.: HY-B0562

Methyclothiazide is an orally active **antihypertensive** agent and a **diuretic agent**.

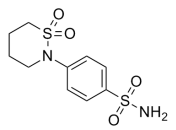


Purity: 99.72%
Clinical Data: Launched
Size: 10 mM × 1 mL, 10 mg, 25 mg, 50 mg

Sultiame

Cat. No.: HY-108316

Sultiame is a **carbonic anhydrase** inhibitor, widely used as an antiepileptic drug.

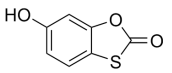


Purity: 99.11%
Clinical Data: No Development Reported
Size: 5 mg

Tioxolone

Cat. No.: HY-B0483

Tioxolone, a metalloenzyme carbonic anhydrase I inhibitor, is an anti-acne preparation. Target: Carbonic Anhydrase Tioxolone is a metalloenzyme carbonic anhydrase I inhibitor with a Ki of 91 nM.



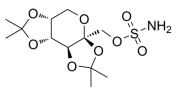
Purity: 98.83%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 500 mg, 1 g

Topiramate

(McN 4853; RWJ 17021)

Cat. No.: HY-B0122

Topiramate (McN 4853) is a broad-spectrum antiepileptic agent. Topiramate is a **GluR5 receptor** antagonist.



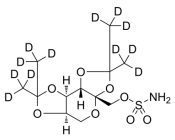
Purity: >98.0%
Clinical Data: Launched
Size: 10 mM × 1 mL, 100 mg, 500 mg

Topiramate D12

(McN 4853 D12 ; RWJ 17021 D12)

Cat. No.: HY-110234

Topiramate D12 (McN 4853 D12) is a deuterium labeled Topiramate. Topiramate is a broad-spectrum antiepileptic agent. Topiramate is a **GluR5 receptor** antagonist.



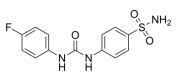
Purity: >98%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg, 25 mg

U-104

(SLC-0111)

Cat. No.: HY-13513

U-104 (SLC-0111) is a potent **carbonic anhydrase (CA)** inhibitor for CA IX and CA XII with K_i values of 45.1 nM and 4.5 nM, respectively. U-104 shows a significant delay in tumor growth in mice model.

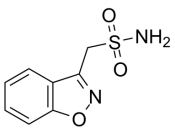


Purity: 99.91%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 10 mg, 50 mg, 100 mg, 500 mg

Zonisamide

(AD 810; CI 912) **Cat. No.:** HY-B0124

Zonisamide (AD 810; CI 912) is an inhibitor of zinc enzyme **carbonic anhydrase (CA)**, with K_is of 35.2 nM and 20.6 nM for human mitochondrial isozyme hCA II and hCA V, respectively. Zonisamide has antiepileptic activity.

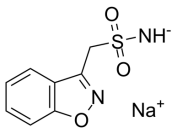


Purity: 99.85%
Clinical Data: Launched
Size: 10 mM × 1 mL, 200 mg, 500 mg

Zonisamide sodium

(AD 810 sodium; CI 912 sodium) **Cat. No.:** HY-B0124A

Zonisamide sodium (AD 810 sodium; CI 912 sodium) is an inhibitor of zinc enzyme **carbonic anhydrase (CA)**, with K_is of 35.2 nM and 20.6 nM for human mitochondrial isozyme hCA II and hCA V, respectively. Zonisamide sodium has antiepileptic activity.



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