Methazolamide

Cat. No.: HY-B0553

CAS No.: 554-57-4

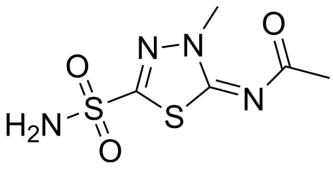
Molecular Formula: $C_5H_8N_4O_3S_2$

Molecular Weight: 236.27

Target: Carbonic Anhydrase

Pathway: Metabolic Enzyme/Protease

Storage: 4°C, protect from light
* In solvent : -80°C, 1 year; -20°C, 6 months (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 50 mg/mL (211.62 mM)
* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	4.2324 mL	21.1622 mL	42.3245 mL
5 mM	0.8465 mL	4.2324 mL	8.4649 mL
10 mM	0.4232 mL	2.1162 mL	4.2324 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (10.58 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (10.58 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (10.58 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Methazolamide (L584601) is a sulfonamide derivative used as a carbonic anhydrase inhibitor with a K_i of 14 nM for human carbonic anhydrase II. Methazolamide, an intraocular pressure-lowering agent, reduces intraocular pressure elevations associated with glaucoma and other ocular disorders[1][2].

IC_{50} & Target

CA Ⅱ

CUSTOMER VALIDATION

- Cell Metab. 2022 Feb 7;34(3):424-440.e7.
- Research Square Print. November 28th, 2022.

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REFERENCES

[1]. Yang F, et al. HLA-B*59:01: a marker for Stevens-Johnson syndrome/toxic epidermal necrolysis caused by methazolamide in Han Chinese. Pharmacogenomics J. 2016;16(1):83-87.

[2]. Abbate F, et al. Carbonic anhydrase inhibitors: X-ray crystallographic structure of the adduct of human isozyme II with the perfluorobenzoyl analogue of methazolamide. Implications for the drug design of fluorinated inhibitors. J Enzyme Inhib Med Chem. 2003;18(4):303-308.

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