

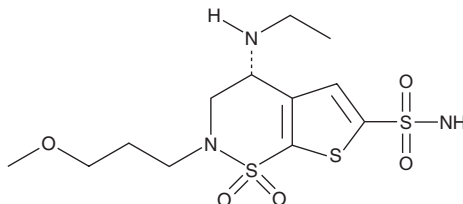
PRODUCT INFORMATION



Brinzolamide

Item No. 11660

CAS Registry No.: 138890-62-7
Formal Name: 4R-(ethylamino)-3,4-dihydro-2-(3-methoxypropyl)-1,1-dioxide-2H-thieno[3,2-e]-1,2-thiazine-6-sulfonamide
Synonym: AL 4862
MF: C₁₂H₂₁N₃O₅S₃
FW: 383.5
Purity: ≥98%
UV/Vis.: λ_{max}: 253 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Brinzolamide is supplied as a crystalline solid. A stock solution may be made by dissolving the brinzolamide in the solvent of choice, which should be purged with an inert gas. Brinzolamide is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of brinzolamide in these solvents is approximately 30 mg/ml.

Brinzolamide is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, brinzolamide should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Brinzolamide has a solubility of approximately 0.3 mg/ml in a 1:2 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Brinzolamide is a potent inhibitor of carbonic anhydrase II (CAII) and CAIV (IC₅₀s = 3.19 and 45.3 nM, respectively).¹ It is selective for CAII and CAIV over CAI (IC₅₀ = ~1,365 nM). Brinzolamide (30 mg/kg) reduces intestinal charcoal meal progression by 44% and prolongs pentobarbital sodium-induced sleep time by 35% in mice. Topical administration of brinzolamide (0.25, 0.5, and 1 mg/eye) reduces intraocular pressure (IOP) in a rabbit model of spontaneous ocular hypertension. It also reduces IOP in a cynomolgus monkey model of argon laser trabeculoplasty-induced ocular hypertension. Formulations containing brinzolamide have been used in the treatment of glaucoma and ocular hypertension.

Reference

1. DeSantis, L. Preclinical overview of brinzolamide. *Surv. Ophthalmol.* 44 (Suppl. 2), S119-S129 (2000).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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