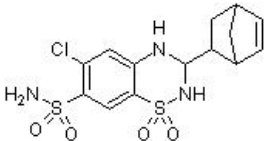


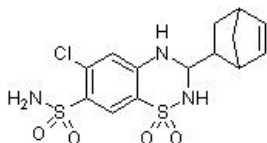
Product datasheet

Cyclothiazide, AMPA receptor desensitisation inhibitor
ab120061

15 References 1 Image

Overview

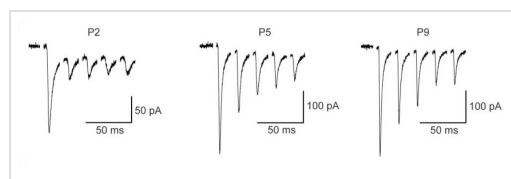
Product name	Cyclothiazide, AMPA receptor desensitisation inhibitor
Description	AMPA receptor desensitisation inhibitor
Biological description	Positive allosteric modulator of AMPA receptors. Produces a fast inhibition of AMPA receptor desensitization and a much slower potentiation of the AMPA current. Also available in Kit: Ionotropic agonists (ab120323).
Purity	> 98%
CAS Number	2259-96-3
Chemical structure	



Properties

Chemical name	6-Chloro-3,4-dihydro-3-(norbornen-5-yl)-2H-1,2,4-benzothiadiazine-7-sulfonamide-1,1-dioxide
Molecular weight	389.87
Molecular formula	C ₁₄ H ₁₆ ClN ₃ O ₄ S ₂
PubChem identifier	2910
Storage instructions	Store at +4°C. Store under desiccating conditions. The product can be stored for up to 12 months.
Solubility overview	Soluble in ethanol to 25 mM and in DMSO to 100 mM
Handling	Wherever possible, you should prepare and use solutions on the same day. However, if you need to make up stock solutions in advance, we recommend that you store the solution as aliquots in tightly sealed vials at -20°C. Generally, these will be useable for up to one month. Before use, and prior to opening the vial we recommend that you allow your product to equilibrate to room temperature for at least 1 hour. Need more advice on solubility, usage and handling? Please visit our frequently asked questions (FAQ) page for more details.
SMILES	NS(=O)(=O)c4cc1c(NC(NS1(=O)=O)C3CC2C=CC3C2)cc4Cl
Source	Synthetic

Images



Other - Cyclothiazide, AMPA receptor desensitisation inhibitor (ab120061)

Image from Case DT, et al. Plos One, 6(6), e20756. Fig S4.; doi: 10.1371/journal.pone.0020756

To determine the capability of VCN-LSO synapses to support repetitive activity in the developing circuit, we added cyclothiazide to the perfusate to prevent AMPAR desensitization and measured responses to 50 Hz pulse-train stimuli delivered to the ventral acoustic stria. A. Representative responses to 50 Hz pulse-trains in P2, P5, and P9 cells; responses to the first five pulses only are shown. Greater paired-pulse depression between pulse 1 and 2 is evident in the youngest cell than in the older cells.

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