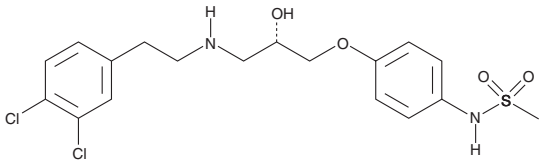
PRODUCT INFORMATION

CAY10608

Item No. 13358

CAS Registry No.:	457897-92-6
Formal Name:	N-[4-[(2S)-3-[[2-(3,4-dichlorophenyl) ethyl]amino]-2-hydroxypropoxy] phenyl]-methanesulfonamide
MF:	$C_{18}H_{22}Cl_2N_2O_4S$
FW:	433.4
Purity:	≥98%
UV/Vis.:	λ_{max}: 228, 281 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

CAY10608 is supplied as a crystalline solid. A stock solution may be made by dissolving the CAY10608 in the solvent of choice, which should be purged with an inert gas. CAY10608 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of CAY10608 in these solvents is approximately 14 and 12.5 mg/ml, respectively.

CAY10608 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, CAY10608 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. CAY10608 has a solubility of approximately 0.1 mg/ml in a 1:10 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

N-Methyl-D-aspartate (NMDA) receptors are Ca^{2+} permeable ligand-gated channels of the central nervous system that are activated after binding of the co-agonists glutamate and glycine. CAY10608 is a propanolamine that potently, selectively, and non-competitively antagonizes the NR2B subunit of NMDA receptors (IC_{50} = 50 nM).[1] It does not inhibit NR1, NR2A, NR2C, and NR2D subunits and has no significant effects on α-amino-3-hydroxy-5-methyl-4-isoxazolepropioinic acid (AMPA) or kainate receptors.[1] CAY10608 is neuroprotective, since it prevents NMDA-triggered release of lactate dehydrogenase from cultured cortical neurons. Also, CAY10608, when administered intraperitoneally, reduces brain infarct volume resulting from transient ischemia *via* carotid artery occlusion.[1]

Reference

1. Tahirovic, Y.A., Geballe, M., Gruszecka-Kowalik, E., *et al.* Enantiomeric propanolamines as selective N-methyl-D-aspartate 2B receptor antagonists. *J. Med. Chem.* **51(18)**, 5506-5521 (2008).

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