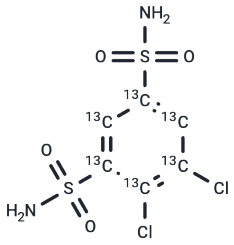
Data Sheet (Cat.No.T36059)

TargetMol

Dichlorphenamide-13C6

Chemical Properties



CAS No. :	1391054-76-4
Formula:	C6H6Cl2N2O4S2
Molecular Weight:	311.1
Storage:	Powder: -20°C for 3 years | In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.

Biological Description

Description	Dichlorphenamide-13C6 is intended for use as an internal standard for the quantification of dichlorphenamide by GC- or LC-MS. Dichlorphenamide (T6469) is a sulfonamide and an orally bioavailable carbonic anhydrase (CA) inhibitor (Kis = 1.20, 38, 50, and 50 nM for the human CA isoforms CAI, CAII, CAIX, and CAXII, respectively).1It lowers intraocular pressure in rabbits when 50 µl of a 10% solution is applied topically to the eye.2Dichlorphenamide rescues the potassium deficiency and prevents insulin-induced paralysis in a rat model of familial hypokalemic periodic paralysis when administered at a dose of 5.6 mg/kg per day for ten days.3Formulations containing dichlorphenamide have been used in the treatment of glaucoma and primary periodic paralysis.
Targets(IC50)	Carbonic Anhydrase

Solubility Information

Solubility	Chloroform: Slightly soluble DMSO: Slightly soluble (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.2144 mL	16.072 mL	32.144 mL
5 mM	0.6429 mL	3.2144 mL	6.4288 mL
10 mM	0.3214 mL	1.6072 mL	3.2144 mL
50 mM	0.0643 mL	0.3214 mL	0.6429 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Brzozowski, Z., Slawi?ski, J., Innocenti, A., et al.Carbonic anhydrase inhibitors. Regioselective synthesis of novel 1-substituted 1,4-dihydro-4-oxo-3-pyridinesulfonamides and their inhibition of the human cytosolic isozymes I and II and transmembrane cancer-associated isozymes IX and XIIEur. J. Med. Chem.45(9)3656-3661(2010)
Lotti, V.J., Schmitt, C.J., and Gautheron, P.D.Topical ocular hypotensive activity and ocular penetration of dichlorphenamide sodium in rabbitsGraefes Arch. Clin. Exp. Ophthalmol.222(1)13-19(1984)
Tricarico, D., Mele, A., and Conte Camerino, D.Carbonic anhydrase inhibitors ameliorate the symptoms of hypokalaemic periodic paralysis in rats by opening the muscular Ca2+-activated-K+ channelsNeuromuscul. Disord.16(1)39-45(2006)

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