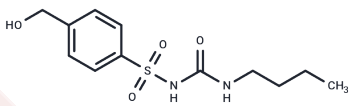
Data Sheet (Cat.No.T14040)

TargetMol

4-Hydroxytolbutamide

Chemical Properties



CAS No. : 5719-85-7

Formula: C12H18N2O4S

Molecular Weight: 286.35

Storage: Store at low temperature
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	4-Hydroxytolbutamide is a sulfonylurea and drug metabolite derived from the metabolism of Tolbutamide by CYP2C8 and CYP2C9 Tolbutamide (HLS 831) is a sulfonylurea hypoglycemic agent.
Targets(IC50)	Autophagy,Drug Metabolite,Potassium Channel
In vitro	4-Hydroxytolbutamide is the primary metabolite of tolbutamide, formed via CYP2C9 in humans and CYP2C11 in rats. In rat liver microsomes, the hydroxylation of tolbutamide follows typical Michaelis-Menten kinetics, indicating enzyme-mediated metabolism. [1]
In vivo	In poloxamer 407-induced hyperlipidemic rats, intravenous or oral administration of tolbutamide (10 mg/kg) produced significantly lower AUC values for 4-Hydroxytolbutamide compared to normal rats, indicating reduced metabolic conversion. [2]

Solubility Information

Solubility	DMSO: 100 mg/mL (349.22 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.4922 mL	17.4611 mL	34.9223 mL
5 mM	0.6984 mL	3.4922 mL	6.9845 mL
10 mM	0.3492 mL	1.7461 mL	3.4922 mL
50 mM	0.0698 mL	0.3492 mL	0.6984 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

Choi MR, Kwon MH, Cho YY, Choi HD, Kim YC, Kang HE. Pharmacokinetics of tolbutamide and its metabolite 4-hydroxy tolbutamide in poloxamer 407-induced hyperlipidemic rats. Biopharm Drug Dispos. 2014 Jul;35(5):264-74.
Choi, M. R., Kwon, M. H., Cho, Y. Y., Choi, H. D., Kim, Y. C., & Kang, H. E. (2014). Pharmacokinetics of tolbutamide and its metabolite 4-hydroxy tolbutamide in poloxamer 407-induced hyperlipidemic rats. Biopharmaceutics & Drug Disposition, 35(5), 264-274.

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481