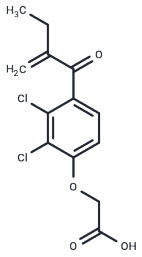
Data Sheet (Cat.No.T4564)

TargetMol

Ethacrynic acid

Chemical Properties



CAS No. : 58-54-8

Formula: C13H12Cl2O4

Molecular Weight: 303.14

Storage: Keep away from direct sunlight
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	Ethacrynic acid (Edecrin) is a nonsulfonamide loop diuretic that inhibits the activity of the Na+/K+/2Cl- cotransporter NKCC2 in the thick ascending limb of the loop of Henle. It also inhibits glutathione S-transferase and Wnt signalling, producing cytotoxicity in chronic lymphocytic leukaemia cells and other tumour cells.
Targets(IC50)	Calcium Channel,NF-κB,NO Synthase,GST,Wnt/beta-catenin

Solubility Information

Solubility	Ethanol: 30 mg/mL (98.96 mM),Sonication is recommended. DMSO: 245 mg/mL (808.21 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (6.6 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.2988 mL	16.494 mL	32.9881 mL
5 mM	0.6598 mL	3.2988 mL	6.5976 mL
10 mM	0.3299 mL	1.6494 mL	3.2988 mL
50 mM	0.066 mL	0.3299 mL	0.6598 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

Kunugi Y, et al. Ethacrynic acid-sensitive and ATP-dependent Cl- transport in the rat kidney[J]. Japanese Journal of Pharmacology, 1991, 57(2):167-74.
Tang Y, Song H, Wang Z, et al. Repurposing antiparasitic antimonials to noncovalently rescue temperature-sensitive p53 mutations. Cell Reports. 2022, 39(2): 110622
Lu D, et al. Ethacrynic Acid Exhibits Selective Toxicity to Chronic Lymphocytic Leukemia Cells by Inhibition of the Wnt/β-Catenin Pathway[J]. Plos One, 2009, 4(12):e8294.
Tang Y, Song H, Wang Z, et al.Repurposing antiparasitic antimonials to noncovalently rescue temperature-sensitive p53 mutations.Cell Reports.2022, 39(2): 110622.