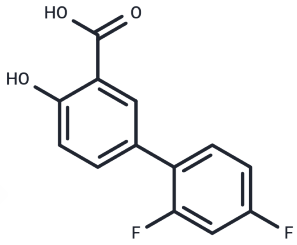
Data Sheet (Cat.No.T0808)

TargetMol

Diflunisal

Chemical Properties



CAS No. : 22494-42-4

Formula: C13H8F2O3

Molecular Weight: 250.20

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	Diflunisal (Dolobid) is a cyclooxygenase (COX) Inhibitor, used as an anti-inflammatory analgesic.
Targets(IC50)	Epigenetic Reader Domain,COX
In vitro	Diflunisal, an FDA-approved drug containing a salicylic acid substructure, inhibited CBP/p300 more potently than salicylate. Diflunisal exhibits anti-tumor activity against a specific leukemia carrying a t(8;21) translocation, a tumor previously reported to be dependent on p300 in vitro and in vivo[2].
In vivo	Diflunisal-mediated kinetic stabilization of TTR(Rate-limiting transthyretin) should ameliorate TTR amyloidoses, provided that the nonsteroidal anti-inflammatory drug liabilities can be managed clinically[3].
Cell Research	HEK293T cells are transfected with expression vectors for WT p300 or catalitycally inactive mutant. 24hr after transfection, cells are treated with diflunisal as indicated for 24hr. H2B acetylation is measured by Western Blot using specified antibodies. Experiments are repeated four times. (Only for Reference)

Solubility Information

Solubility	DMSO: 250 mg/mL (999.2 mM),Sonication is recommended. Ethanol: 20 mg/mL (79.94 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: 10 mg/mL (39.97 mM),Solution. 10% DMSO+90% Saline: < 10 mg/mL (39.97 mM),Lower concentrations may be soluble, but exact solubility limit is unknown. *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	3.9968 mL	19.984 mL	39.968 mL
5 mM	0.7994 mL	3.9968 mL	7.9936 mL
10 mM	0.3997 mL	1.9984 mL	3.9968 mL
50 mM	0.0799 mL	0.3997 mL	0.7994 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

Cappon GD, et al. Birth Defects Res B Dev Reprod Toxicol. 2003, 68(1):47-56.
Shirakawa K, et al. Elife. 2016, 5. pii: e11156.
Sekijima Y, et al. Amyloid. 2006, 13(4):236-49.