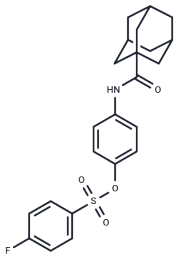
Data Sheet (Cat.No.T77631)

TargetMol

Enpp/Carbonic anhydrase-IN-2

Chemical Properties



CAS No. : 2883495-39-2

Formula: C23H24FNO4S

Molecular Weight: 429.5

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	Enpp/Carbonic anhydrase-IN-2 is a potent dual inhibitor of Enpp and carbonic anhydrase, inhibiting NPP1, NPP2, NPP3, CA-IX, CA-XII, with IC50 values of 1.13, 1.07, 0.74, 0.33, 0.68, respectively.Enpp/Carbonic anhydrase-IN-2 induced apoptosis. Enpp/Carbonic anhydrase-IN-2 has antiproliferative activity against cancer cells and low cytotoxicity against normal cells.
Targets(IC50)	Apoptosis,Carbonic Anhydrase,PDE
In vitro	Enpp/Carbonic anhydrase-IN-2 (compound 1i) (0-2 μM) exhibits low cytotoxicity against normal breast epithelial cells (HME1) and normal skin fibroblast cells (F180) with IC50s > 50 μM.[1] Enpp/Carbonic anhydrase-IN-2 (0-100 μM) inhibits the growth of various cancer cells, showing IC50s of 0.58, 0.58, 0.63, 0.42, 0.20, 0.72, 0.41, 0.76, 0.94, 0.28, 0.49, 0.59, and 0.83 μM for K-562, COLO 205, HCT-116, HCT-15, HT29, KM12, SW-620, SF-539, NCI/ADR-RES, A498, PC-3, MCF7, and T-47D cells, respectively.[1] Additionally, Enpp/Carbonic anhydrase-IN-2 (0.58, 1.16 μM) induces apoptosis in a dose-dependent manner in K-562 cells.[1]

Solubility Information

Solubility	DMSO: 40 mg/mL (93.13 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 2 mg/mL (4.66 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	2.3283 mL	11.6414 mL	23.2829 mL
5 mM	0.4657 mL	2.3283 mL	4.6566 mL
10 mM	0.2328 mL	1.1641 mL	2.3283 mL
50 mM	0.0466 mL	0.2328 mL	0.4657 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

Shahin AI, et al. Design and synthesis of new adamantyl derivatives as promising antiproliferative agents. Eur J Med Chem. 2023 Jan 15;246:114958.