Data Sheet (Cat.No.T6474)

TargetMol

Divalproex Sodium

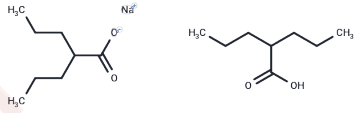
Chemical Properties

CAS No. : 76584-70-8

Formula: C8H16O2·C8H15O2·Na

Molecular Weight: 310.41

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	Divalproex Sodium (Valproate semisodium) binds to and inhibits gamma-aminobutyric acid (GABA) transaminase and its anticonvulsant activity may be exerted by increasing brain concentration of GABA and by inhibiting enzymes that catabolize GABA or block the reuptake of GABA into glia and nerve endings. It also is an HDAC inhibitor, Comprised of sodium valproate and valproic acid with anticonvulsant and antiepileptic activities. Divalproex may also work by suppressing repetitive neuronal firing through the inhibition of voltage-sensitive sodium channels.
Targets(IC50)	Apoptosis,Mitophagy,Gamma-secretase,HIV Protease,GABA Receptor,Endogenous Metabolite,HDAC,Autophagy
In vitro	Divalproex sodium enhances apoptosis, IM-induced cell growth inhibition and cell cycle arrest in K562-G and K562-S cells. It enhances the inhibitory effects of IM on SIRT1 expression in K562-G and K562-S cells. Divalproex sodium enhances the effect of IM on apoptosis in K562-G cells partly through SIRT1.
In vivo	Divalproex (500 mg/kg) significantly increases dopamine (DA) and acetylcholine (ACh) efflux in the rat hippocampus, and DA, but not ACh, efflux in the rat medial prefrontal cortex (mPFC), whereas 50 mg/kg has no effect on DA or ACh in either region. Divalproex (50 mg/kg) combined with the atypical APDs Olanzapine (1.0 mg/kg) or Aripiprazole (0.3 mg/kg) significantly potentiates the effect of both antipsychotic drugs (APDs) on DA, but not ACh efflux in the HIP and mPFC.

Solubility Information

Solubility	H2O: 57 mg/mL (183.63 mM),Sonication is recommended. DMSO: 255 mg/mL (821.49 mM),Sonication is recommended. Ethanol: 58 mg/mL (186.85 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: 10 mg/mL (32.22 mM),Solution. *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	3.2215 mL	16.1077 mL	32.2155 mL
5 mM	0.6443 mL	3.2215 mL	6.4431 mL
10 mM	0.3222 mL	1.6108 mL	3.2215 mL
50 mM	0.0644 mL	0.3222 mL	0.6443 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

Wang W, et al. Cancer Lett, 2015, 356(2 Pt B), 791-799.
Huang M, et al. Brain Res, 2006, 1099(1), 44-55.