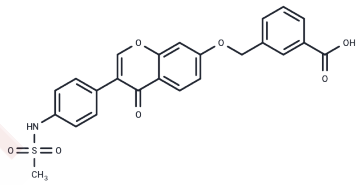
Data Sheet (Cat.No.T15022)

TargetMol

CVT-10216

Chemical Properties



CAS No. : 1005334-57-5

Formula: C24H19NO7S

Molecular Weight: 465.48

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	CVT-10216 is a Potent and selective, reversible inhibitor of aldehyde dehydrogenase 2 (ALDH2) (IC50: 29 nM). CVT-10216 also has inhibitory effect of ALDH-1 (IC50: 1.3 μM). CVT-10216 can reduce excessive alcohol drinking in alcohol-preferring rats and exhibit anxiolytic effects.
Targets(IC50)	Dehydrogenase
In vivo	CVT-10216 is a highly selective, reversible inhibitor of ALDH-2 that reduces excessive alcohol drinking.?Anxiety plays a role in alcoholism. As reflected in social interaction behavior in four unrelated rodent models: endogenous anxiety-like behavior in na?ve Fawn-Hooded rats, repeated alcohol-withdrawal-induced anxiety, restraint stress-induced anxiety and drug-induced anxiety.?CVT-10216 counteracted anxiety in all models except that produced by the 5-HT(2C) agonist, mCPP.?CVT-10216 exhibited both acute and prophylactic inhibitions of repeated alcohol-withdrawal-induced anxiety.? Importantly, anxiogenic behavior induced by the benzodiazepine receptor inverse agonist, DMCM, was counteracted dose-dependently by CVT-10216.CVT-10216 (intraperitoneal injection; 3.75 or 15 mg/kg) are determined 5 h into the third withdrawal, it has the anxiolytic effect of 15 mg/kg CVT-10216 in this model. ?However it has no significant effects on locomotor activity. CVT-10216 (intraperitoneal injection; 3.75, 7.5, or 15 mg/kg) shows a increase in social interaction as a dose-dependent manner, punctuated by a 2-fold increase in social interaction after 15 mg/kg in Fawn-Hooded rats[1].

Solubility Information

Solubility	DMF: 25 mg/mL (53.71 mM),Sonication and heating are recommended. DMSO: 245 mg/mL (526.34 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 (21.48 mM),Lower concentrations may be soluble, but exact solubility limit is unknown. 10% DMSO+90% Corn Oil: 2 mg/mL (4.3 mM),Sonication is recommended. 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 10 mg/mL (21.48 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*

In vivo Formulation	*vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.1483 mL	10.7416 mL	21.4832 mL
5 mM	0.4297 mL	2.1483 mL	4.2966 mL
10 mM	0.2148 mL	1.0742 mL	2.1483 mL
50 mM	0.043 mL	0.2148 mL	0.4297 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

Overstreet DH, et al. A selective ALDH-2 inhibitor reduces anxiety in rats.Pharmacol Biochem Behav. 2009 Dec;94 (2):255-61.