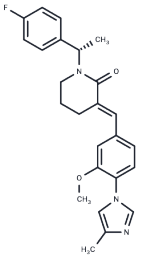
Data Sheet (Cat.No.T15184)

TargetMol

E 2012

Chemical Properties



CAS No. : 870843-42-8

Formula: C25H26FN3O2

Molecular Weight: 419.49

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	E2012 is a γ-secretase modulator (GSM). E2012 inhibits 3β-hydroxysterol Δ24-reductase (DHCR24) at the final step in the cholesterol biosynthesis. E 2012 aims at Alzheimer's disease by reduction of amyloid β-42, and induces cataract following repeated doses in the rat.
Targets(IC50)	Gamma-secretase
In vitro	In vitro studies to investigate the effect of E2012 on cholesterol metabolism demonstrated that E2012 inhibits 3β-hydroxysterol Δ24-reductase (DHCR24) at the final step in the cholesterol biosynthesis[1].
In vivo	9 dogs were treated with a single dose of the γ-secretase modulator E2012, the γ-secretase inhibitor LY450139, or vehicle with a dosing interval of 1 week.?The CSF Aβ isoform pattern was analyzed by immunoprecipitation combined with MALDI-TOF mass spectrometry.?Aβ(1-15) and Aβ(1-16) increase while Aβ(1-34) decreases in response to treatment with the γ-secretase inhibitor LY450139, which is in agreement with previous studies.?The isoform Aβ(1-37) was significantly increased in a dose-dependent manner in response to treatment with E2012, while Aβ(1-39), Aβ(1-40) and A(1-42) decreased.?The data presented suggests that the γ-secretase modulator E-2012 alters the cleavage site preference of γ-secretase.?The increase in Aβ(1-37) may inhibit Aβ(1-42) oligomerization and toxicity[2].

Solubility Information

Solubility	DMSO: 50 mg/mL (119.19 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 (4.77 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	2.3838 mL	11.9192 mL	23.8385 mL
5 mM	0.4768 mL	2.3838 mL	4.7677 mL
10 mM	0.2384 mL	1.1919 mL	2.3838 mL
50 mM	0.0477 mL	0.2384 mL	0.4768 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

Nakano-Ito K, et al. E2012-induced cataract and its predictive biomarkers. Toxicol Sci. 2014 Jan;137(1):249-58.
Portelius E, Van Broeck B, Andreasson U, Gustavsson MK, Mercken M, Zetterberg H, Borghys H, Blennow K.Acute effect on the Aβ isoform pattern in CSF in response to γ-secretase modulator and inhibitor treatment in dogs.J Alzheimers Dis. 2010;21(3):1005-12.

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481