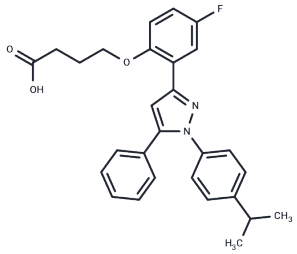
Data Sheet (Cat.No.T62870)

TargetMol

FABPs ligand 6

Chemical Properties



CAS No. : 2988135-14-2

Formula: C28H27FN2O3

Molecular Weight: 458.52

Storage: Store at low temperature
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	FABPs ligand 6 (MF6) is a selective inhibitor of FABP5 and FABP7 that reduces levels of oxidative stress in the mouse spinal cord as well as lipopolysaccharide-stimulated interleukin-1β and tumor necrosis factor α accumulation in primary astrocyte cultures. FABPs ligand 6 has a potent protective function in oligodendrocytes of EAE mice through FABP5 inhibition. mitochondria with a strong protective function.
Targets(IC50)	FABP
In vitro	FABP ligand 6 has exhibited a high binding affinity for FABP5 (KD=874 nM) and FABP7 (KD=20 nM), but not for FABP3 (KD=1038 nM). [1] FABPs ligand 6 almost completely suppressed the upregulated oxidative stress levels and significantly decreased the number of 4-HNE-positive cells. [1] FABPs ligand 6-treated astrocytes, significantly attenuated IL-1b and TNF-a levels, indicating a suppressed inflammatory response. [1]
In vivo	EAE mice were orally administered FABPs ligand 6 (1 mg/kg), which is the maximum effective dose in brain ischemia 1 week before MOG immunisation of the EAE model. FABPs ligand 6 administration significantly reduced the severity of EAE. [1]

Solubility Information

Solubility	DMSO: 100 mg/mL(218.09 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 (4.36 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	2.1809 mL	10.9046 mL	21.8093 mL
5 mM	0.4362 mL	2.1809 mL	4.3619 mL
10 mM	0.2181 mL	1.0905 mL	2.1809 mL
50 mM	0.0436 mL	0.2181 mL	0.4362 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

Cheng A, et al. A novel fatty acid-binding protein 5 and 7 inhibitor ameliorates oligodendrocyte injury in multiple sclerosis mouse models. EBioMedicine. 2021 Oct;72:103582.