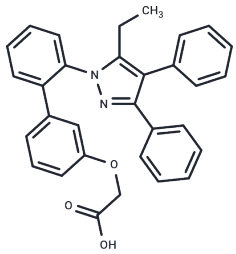
Data Sheet (Cat.No.T4534)

TargetMol

BMS-309403

Chemical Properties



CAS No. : 300657-03-8

Formula: C31H26N2O3

Molecular Weight: 474.55

Storage: Keep away from moisture
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	BMS309403 is a potent and selective inhibitor of adipocyte fatty acid binding protein aFABP. It improves endothelial function in apolipoprotein E-deficient mice and cultured human endothelial cells. It interacts with the fatty acid binding pocket inside the protein and competitively inhibits the binding of endogenous fatty acids.
Targets(IC50)	FABP
In vitro	Treatment with BMS309403 significantly reduced MCP-1 production in THP-1 macrophages in a dose- and time-dependent manner.[1]
In vivo	**METHODS**: 3 weeks after the onset of diabetes, mice were orally treated with BMS309403 (40 mg/kg, daily) for 3 weeks. During treatment, monitor blood sugar levels. **RESULTS** BMS309403 can significantly reduce the protein expression of FABP4 in mouse retinal tissue and partially reduce blood glucose levels in mice. [2]

Solubility Information

Solubility	Ethanol: 20 mM,Heating is recommended. DMSO: 255 mg/mL (537.35 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 (4.21 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	2.1073 mL	10.5363 mL	21.0726 mL
5 mM	0.4215 mL	2.1073 mL	4.2145 mL
10 mM	0.2107 mL	1.0536 mL	2.1073 mL
50 mM	0.0421 mL	0.2107 mL	0.4215 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

Furuhashi M, et al. Treatment of diabetes and atherosclerosis by inhibiting fatty-acid-binding protein aP2. Nature. 2007 Jun 21;447(7147):959-65.
Fan X, et al. Downregulation of fatty acid binding protein 4 alleviates lipid peroxidation and oxidative stress in diabetic retinopathy by regulating peroxisome proliferator-activated receptor γ-mediated ferroptosis. Bioengineered. 2022 Apr;13(4):10540-10551.
Lin W, et al. BMS309403 stimulates glucose uptake in myotubes through activation of AMP-activated protein kinase. PLoS One. 2012;7(8):e44570.

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