

ABT-046

Chemical Properties

CAS No. : 1031336-60-3

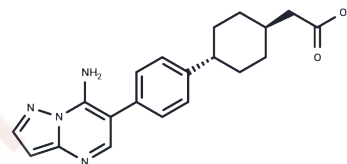
Formula: C₂₀H₂₂N₄O₂

Molecular Weight: 350.41

Store at low temperature

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	ABT-046 is an orally active, selective, and highly efficient Diacylglycerol Acyltransferase 1 (DGAT-1) inhibitor that can be used in metabolic disease research.
Targets(IC50)	Acyltransferase,Transferase
In vitro	ABT-046 did not significantly inhibit human DGAT-2, but prevented human DGAT-1 from catalyzing triglyceride production in HeLa cells, with an IC ₅₀ of 78 nM.[1] In Caco-2 cells, ABT-046 exhibited high in vitro permeability and no active efflux was detected (efflux ratios of 1.4 and 1.1 at 0.5 and 5 μM, respectively).[1] ABT-046 was also found to inhibit human DGAT-2, but prevented human DGAT-1 from catalyzing triglyceride production in HeLa cells with an IC ₅₀ of 78 nM. [1] The metabolic conversion of ABT-046 to mouse and human liver microsomes is extremely low and almost negligible. [1]
In vivo	Single gavage administration of ABT-046 (0.03-3 mg/kg) significantly reduced postprandial triglyceride levels in CD-1 mice. [1] Single gavage administration of ABT-046 (0.3 mg/kg) effectively suppressed postprandial triglyceride fluctuations in diet-induced obese mice. [1]

Solubility Information

Solubility	DMSO: 50 mg/mL (142.69 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.8538 mL	14.269 mL	28.538 mL
5 mM	0.5708 mL	2.8538 mL	5.7076 mL
10 mM	0.2854 mL	1.4269 mL	2.8538 mL
50 mM	0.0571 mL	0.2854 mL	0.5708 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

Yeh VS, et al. Identification and preliminary characterization of a potent, safe, and orally efficacious inhibitor of Acyl-CoA: Diacylglycerol acyltransferase J Med Chem. 2012 Feb 23;55(4):1751-1757.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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