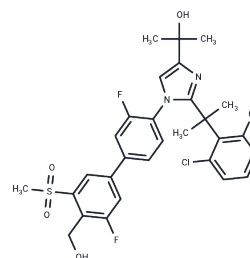


XL041

Chemical Properties

CAS No. : 1256918-39-4
 Formula: C₂₉H₂₈Cl₂F₂N₂O₄S
 Molecular Weight: 609.51
 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	XL041 (BMS-852927) is an agonist selective for LXRβ.
Targets(IC50)	Liver X Receptor
In vitro	XL041 (BMS-852927) functions as an LXRβ-selective agonist, exhibiting 20% activity towards LXRα and 88% towards LXRβ relative to a comprehensive pan agonist in transactivation assays. Despite similar binding affinities to LXRα and LXRβ (19 and 12 nM, respectively)[1], XL041 proves to be potent, with an EC ₅₀ of 9 nM and achieves 26% activity in an in vitro human whole-blood endogenous target gene activation assay (WBA).
In vivo	XL041 (BMS-852927) exhibits a highly favorable efficacy profile at therapeutic doses in both cynomolgus monkeys and mice. In a distinct study, the compound effectively inhibited the progression of atherosclerosis over a 12-week period in LDLR knockout (KO) mice. Additionally, pre-treating C57BL/6j mice with XL041 for seven days induced a potent and dose-dependent increase in cholesterol efflux, peaking at a 70% enhancement over the control with a dose of 3 mg/kg/day. This effect was also observed in LDLR KO mice. Notably, the dosage range that inhibits atherosclerosis (0.1-3 mg/kg/day) aligns closely with the dosage range that stimulates macrophage reverse cholesterol transport (RCT) (0.03-3 mg/kg/day), indicating a conserved mechanism of action for LXR agonists in mitigating the disease.

Solubility Information

Solubility	DMSO: 100 mg/mL (164.07 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: 3.3 mg/mL (5.41 mM), Sonication is recommended. <i>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.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.6407 mL	8.2033 mL	16.4066 mL
5 mM	0.3281 mL	1.6407 mL	3.2813 mL
10 mM	0.1641 mL	0.8203 mL	1.6407 mL
50 mM	0.0328 mL	0.1641 mL	0.3281 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

Kirchgessner TG, et al. Beneficial and Adverse Effects of an LXR Agonist on Human Lipid and Lipoprotein Metabolism and Circulating Neutrophils. *Cell Metab.* 2016 Aug 9;24(2):223-33.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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