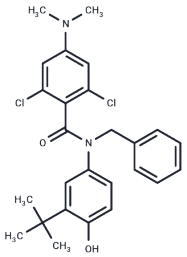
Data Sheet (Cat.No.T63042)

NDB

Chemical Properties



CAS No. : 1660153-08-1

Formula: C26H28Cl2N2O2

Molecular Weight: 471.42

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	NDB is a selective and potent hFXRα antagonist that inhibits GW4064-stimulated FXR/RXR interactions and FXRα target gene expression in primary mouse hepatocytes. NDB is used in the study of diabetes.
Targets(IC50)	FXR
In vitro	NDB induces rearrangements of helix 11 (H11) and helix 12 (H12, AF-2) by forming a homodimer of hFXRα-LBD, differing significantly from the active monomer conformation [1]. At 25 μM, NDB effectively antagonizes the GW4064-stimulated FXR/RXR interaction and FXRα target gene expression in primary mouse hepatocytes, including the small heterodimer partner (SHP) and bile-salt export pump (BSEP)[1].'
In vivo	Administered through intraperitoneal injection at a dosage of 24 mg/kg once a day for a duration of 4 weeks, NDB efficiently decreases the gene expressions of phosphoenolpyruvate carboxykinase (PEPCK), glucose 6-phosphatase (G6-pase), small heterodimer partner, and bile-salt export pump (BSEP) in db/db mice[1].

Solubility Information

Solubility	DMSO: 80 mg/mL (169.7 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 3.3 mg/mL (7 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	2.1213 mL	10.6063 mL	21.2125 mL
5 mM	0.4243 mL	2.1213 mL	4.2425 mL
10 mM	0.2121 mL	1.0606 mL	2.1213 mL
50 mM	0.0424 mL	0.2121 mL	0.4243 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

Xu X,et al. Structural Basis for Small Molecule NDB (N-Benzyl-N-(3-(tert-butyl)-4-hydroxyphenyl)-2,6-dichloro-4-(dimethylamino) Benzamide) as a Selective Antagonist of Farnesoid X Receptor α (FXRα) in Stabilizing the Homodimerization of the Receptor. J Biol Chem. 2015 Aug 7;290(32):19888-99.