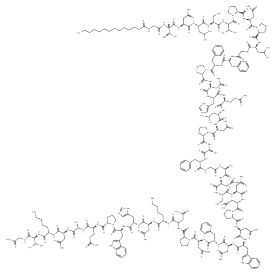
Data Sheet (Cat.No.T35373)

TargetMol

Bulevirtide

Chemical Properties



CAS No. : 2012558-47-1

Formula: C248H355N65O72

Molecular Weight: 5398.86

Storage: Keep away from moisture,Keep away from direct sunlight
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	Bulevirtide, also known by its developmental code name Myrcludex B, is a synthetic lipopeptide inhibitor of the sodium taurocholate cotransporting polypeptide (NTCP) that effectively inhibits the cellular entry of both hepatitis B virus (HBV) and hepatitis D virus (HDV) into hepatocytes, even in cases of compensated cirrhosis, showing significant potential for the treatment of chronic hepatitis D.
Targets(IC50)	HBV
In vitro	Bulevirtide (2 μM, 9 days) treatment of Huh7-NTCP cells exhibits antiviral activity by inhibiting viral replication and blocking NTCP-mediated upregulation of HBV replication in Huh7-NTCP cells.[3]
In vivo	**Methods**: Bulevirtide (2.5 mg/kg, subcutaneous injection, 100 mg/kg) was administered to OATP1a/1b-deficient mice to investigate the plasma bile acid dynamics after Bulevirtide inhibited NTCP. **Results**: Peak plasma bile salt concentrations were achieved 4 hours after Bulevirtide administration (Figure 1A), at which time most Bulevirtide had been cleared from the circulation. [2]

Solubility Information

Solubility	H2O: 65 mg/mL (12.04 mM),when pH is adjusted to 8 with NH3·H2O. Sonication is recommended. DMSO: 40 mg/mL (7.41 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 2 mg/mL (0.37 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	0.1852 mL	0.9261 mL	1.8522 mL
5 mM	0.037 mL	0.1852 mL	0.3704 mL
10 mM	0.0185 mL	0.0926 mL	0.1852 mL
50 mM	0.0037 mL	0.0185 mL	0.037 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

Stephan Urban, et al. Gastroenterology . 2014 Jul;147(1):48-64.
Donkers JM, et al., Mechanistic insights into the inhibition of NTCP by myrcludex B. JHEP Rep. 2019 Aug 1;1(4):278-285.
Zhao K, et al., Upregulation of HBV transcription by sodium taurocholate cotransporting polypeptide at the postentry step is inhibited by the entry inhibitor Myrcludex B. Emerg Microbes Infect. 2018 Nov 21;7(1):186.