

Teduglutide

Chemical Properties

CAS No. :	197922-42-2
Formula:	C164H252N44O55S
Molecular Weight:	3752.08
Storage:	Keep away from moisture Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>

Biological Description

Description	Teduglutide (ALX-0600) is a glucagon-like peptide-2 analog that increases intestinal absorption by promoting mucosal growth and reducing mucosal degradation, improving intestinal recovery. It is used in the study of short bowel syndrome (SBS). Teduglutide activates NR4a1/nur77 expression and FXR signaling, alleviating intestinal dysfunction in mice and improving lung injury, making it useful for studying metabolic and cardiovascular diseases.
Targets(IC50)	FXR,NR4A
In vitro	Teduglutide (2.5 μ M, 36 h) can activate the expression of NR4a1/nur77 in human hepatic stellate cells. [1] Teduglutide increased the proliferation and decreased apoptosis of all intestinal epithelial cells in the short intestinal neonatal piglet model. [2]
In vivo	Liver inflammation, fibrosis, and reactive bile duct cell phenotypes were improved in Mdr2 mice treated with Teduglutide (intraperitoneal injection). Teduglutide promotes Fxr-Fgf15/19 signaling in the gut, resulting in decreased Cyp7a1 and increased Cyp2c70 expression in the liver, contributing to the hepatoprotective and antifibrotic effects of GLP-2 in Mdr2-/- mouse models. [1] Teduglutide (0.1 mg/kg/d) improved mucosal surface area and acute nutrient handling capacity of newborn piglets with ileojejunum resection. [2]

Solubility Information

Solubility	DMSO: 40 mg/mL (10.66 mM),Sonication is recommended. H2O: 10 mg/mL (2.67 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	0.2665 mL	1.3326 mL	2.6652 mL
5 mM	0.0533 mL	0.2665 mL	0.533 mL
10 mM	0.0267 mL	0.1333 mL	0.2665 mL
50 mM	0.0053 mL	0.0267 mL	0.0533 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

Fuchs CD, et al. GLP-2 Improves Hepatic Inflammation and Fibrosis in Mdr2^{-/-} Mice Via Activation of NR4a1/Nur77 in Hepatic Stellate Cells and Intestinal FXR Signaling. *Cell Mol Gastroenterol Hepatol.* 2023;16(5):847-856.

Naberhuis JK, et al. Teduglutide-Stimulated Intestinal Adaptation Is Complemented and Synergistically Enhanced by Partial Enteral Nutrition in a Neonatal Piglet Model of Short Bowel Syndrome. *JPEN J Parenter Enteral Nutr.* 2017 Jul;41(5):853-865.

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