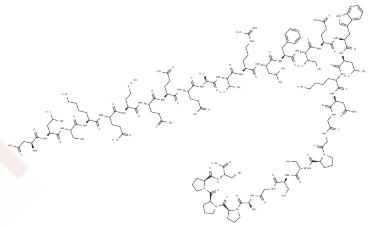
Data Sheet (Cat.No.TP2100)

TargetMol

Avexitide

Chemical Properties



CAS No. : 133514-43-9

Formula: C149H234N40O47S

Molecular Weight: 3369.76

Storage: Store at low temperature,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	Avexitide (Exendin-3(9-39)amide) is a specific, competitive GLP-1 receptor antagonist (Ki = 0.36 nM). Avexitide binds to the GLP-1 receptor (GLP-1R) with high affinity (Kd = 0.42 nM), blocking the interaction between endogenous GLP-1 and the receptor, thereby counteracting the effects of excessive GLP-1 secretion. Avexitide is being studied for post-bariatric hypoglycemia (PBH) and congenital hyperinsulinism.
Targets(IC50)	Glucagon Receptor
In vitro	**Methods**: Primary human pancreatic islet cells were co-cultured with Avexitide and the FATP2 inhibitor lipofermata (10 μM) under specific conditions to observe their effects on GLP-1 and insulin secretion. **Results**: The accompanying increase in insulin secretion was blocked by Avexitide. [1]
In vivo	**Methods**: An acute pain model was induced in mice by injecting capsaicin into the plantar surface of the hind paw. Thirty minutes prior to capsaicin injection, Avexitide was administered either locally into the plantar surface (0.1, 1, or 10 nmol/paw) or intraperitoneally (100 nmol/kg). **Results**: Avexitide Dose-dependent and significant attenuation of capsaicin-induced acute pain was observed. Local administration proved effective, suggesting a peripheral site of action. [2]

Solubility Information

Solubility	H2O: 49 mg/mL (14.54 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.2968 mL	1.4838 mL	2.9676 mL
5 mM	0.0594 mL	0.2968 mL	0.5935 mL
10 mM	0.0297 mL	0.1484 mL	0.2968 mL
50 mM	0.0059 mL	0.0297 mL	0.0594 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

Khan S, et al. Fatty acid transport protein 2 inhibition enhances glucose tolerance through α cell-mediated GLP-1 secretion. J Clin Invest. 2025 Sep 16;135(23):e192011.
Go EJ, et al. GLP-1 and its derived peptides mediate pain relief through direct TRPV1 inhibition without affecting thermoregulation. Exp Mol Med. 2024 Nov;56(11):2449-2464.
Thorens et al (1993) Cloning and functional expression of the human islet GLP-1 receptor. Demonstration that exendin-4 is an agonist and exendin-(9-39) an antagonist of the receptor. Diabetes 42 1678 PMID:
Turton et al (1996) A role for glucagon-like peptide-1 in the central regulation of feeding. Nature 379 69 PMID: