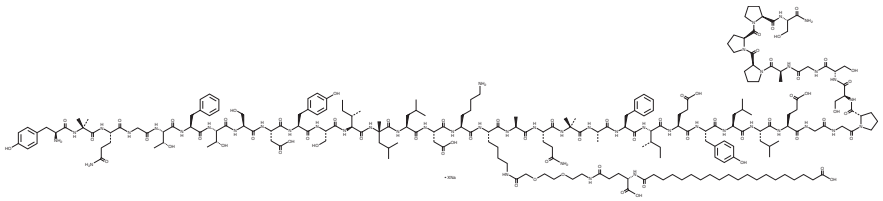
PRODUCT INFORMATION

Retatrutide (sodium salt)

Item No. 39747



Formal Name: L-tyrosyl-2-methylalanyl-L-glutaminylglycyl-L-threonyl-L-phenylalanyl-L-threonyl-L-seryl-L-α-aspartyl-L-tyrosyl-L-seryl-L-isoleucyl-2-methyl-L-leucyl-L-leucyl-L-α-aspartyl-L-lysyl-N^6-[N-(19-carboxy-1-oxononadecyl)-L-γ-glutamyl-2-[2-(2-aminoethoxy)ethoxy]acetyl]-L-lysyl-L-alanyl-L-glutaminyl-2-methylalanyl-L-alanyl-L-phenylalanyl-L-isoleucyl-L-α-glutamyl-L-tyrosyl-L-leucyl-L-leucyl-L-α-glutamylglycylglycyl-L-prolyl-L-seryl-L-serylglycyl-L-alanyl-L-prolyl-L-prolyl-L-prolyl-L-serinamide, sodium salt

Synonym: LY3437943

MF: $C_{221}H_{342}N_{46}O_{68}$ • XNa

FW: 4,731.3

Purity: ≥98%

Supplied as: A solid

Storage: -20°C

Stability: ≥4 years

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Retatrutide (sodium salt) is supplied as a solid. A stock solution may be made by dissolving the retatrutide (sodium salt) in the solvent of choice, which should be purged with an inert gas. Retatrutide (sodium salt) is sparingly soluble (1-10 mg/ml) in DMSO and slightly soluble in acetonitrile.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of retatrutide (sodium salt) can be prepared by directly dissolving the solid in aqueous buffers. Retatrutide (sodium salt) in sparingly soluble (1-10 mg/ml) in PBS (pH 7.2). We do not recommend storing the aqueous solution for more than one day

Description

Retatrutide is a triple agonist of the glucagon receptor (GCGR), glucagon-like peptide 1 receptor (GLP-1R), and gastric inhibitory polypeptide receptor (GIP receptor), also known as the glucose-dependent insulinotropic polypeptide receptor.[1] It induces cAMP accumulation in HEK293 cells expressing the human GCGR, GLP-1R, or GIP receptor (EC_{50}s = 5.79, 0.775, and 0.0643 nM, respectively). Retatrutide (0.1-30 nmol/kg) decreases plasma glucose levels in an intraperitoneal glucose tolerance test in mice. It decreases body weight, calorie intake, fat mass, and lean mass in a mouse model of diet-induced obesity in a dose-dependent manner. Acute administration of retatrutide (10 nmol/kg) delays gastric emptying and chronic administration for 10 days decreases food intake and body weight in mice.[2]

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References

1. Coskun, T., Urva, S., Roell, W.C., *et al.* LY3437943, a novel triple glucagon, GIP, and GLP-1 receptor agonist for glycemic control and weight loss: From discovery to clinical proof of concept. *Cell Metab.* **34(9),** 1234-1247 (2022).
2. Urva, S., O'Farrell, L., Du, Y., *et al.* The novel GIP, GLP-1 and glucagon receptor agonist retatrutide delays gastric emptying. *Diabetes Obes. Metab.* **25(9),** 2784-2788 (2023).

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