

PRODUCT INFORMATION



Retatrutide

Item No. 45527

CAS Registry No.: 2381089-83-2

Formal Name: L-tyrosyl-2-methylalanyl-L-glutaminyglycyl-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-N⁶-[N-(19-carboxy-1-oxononadecyl)-L- γ -glutamyl-2-[2-(2-aminoethoxy)ethoxy]acetyl]-L-lysyl-L-alanyl-L-glutaminy-L-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

Synonym: LY3437943

Peptide Sequence: Y-Aib-QGTFTSDYSI- α -MeLeu-LDK-K(AEEA- γ -Glu-C20 diacid)-AQ-Aib-AFIEYLLEGGPSSGAPPPS-NH₂ (where Aib = α -aminoisobutyric acid and α -MeLeu = α -methyl-L-leucine)

MF: C₂₂₁H₃₄₂N₄₆O₆₈

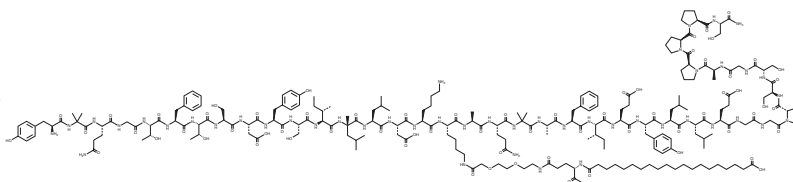
FW: 4,731.4

Purity: $\geq 95\%$

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 is supplied as a solid. Aqueous solutions of retatrutide can be prepared by directly dissolving the solid in aqueous buffers. Retatrutide is slightly soluble (0.1-1 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 (EC₅₀s = 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

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

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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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