OLYMPUS PEPTIDE

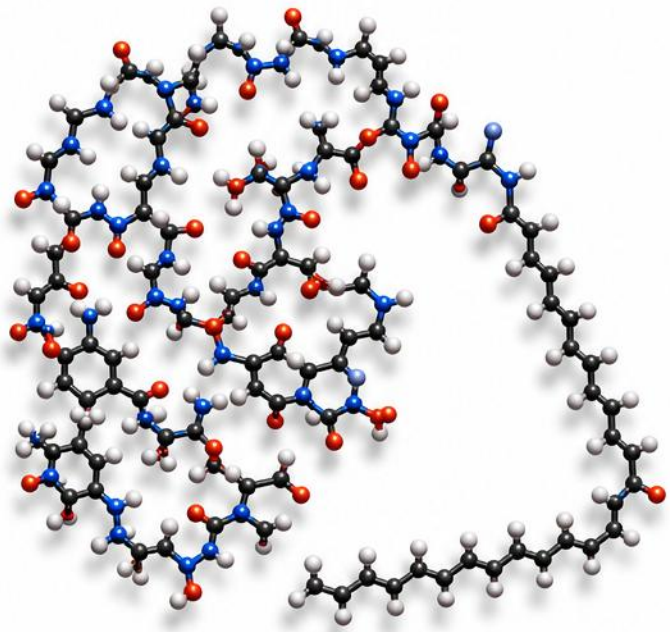
RETATRUTIDE
(LY3437943)
TECHNICAL INFORMATION SHEET

RESEARCH USE ONLY

PRODUCT NAME	Retatrutide
SYNONYMS	Retatrutide; LY3437943
CAS NUMBER	2381089-83-2
PEPTIDE CLASS	Triple GIP, GLP-1 and Glucagon receptor agonist
PEPTIDE LENGTH	39 amino acids (modified peptide)
MOLECULAR FORMULA	$C_{221}H_{342}N_{46}O_{68}$
AVERAGE MOLECULAR WEIGHT	4,731.3 g/mol
APPEARANCE	White to off-white lyophilized powder
SOLUBILITY	Formulation-dependent; soluble in suitable aqueous media under validated laboratory conditions.
STORAGE (LYOPHILIZED)	2–8°C short term; –20°C or below long term. Protect from light and moisture.
STORAGE (RECONSTITUTED)	2–8°C. Avoid repeated freeze–thaw cycles.

3-D MOLECULAR VISUALIZATION

Illustrative three-dimensional molecular visualization of Retatrutide (LY3437943).



Carbon Hydrogen Nitrogen Oxygen

Illustrative molecular visualization based on the published chemical structure of Retatrutide (LY3437943). This image is intended for educational and visual reference only.

PEPTIDE BACKBONE SEQUENCE — ONE-LETTER CODE

One-letter code (39 amino acids):

YAQGTFTSDYSILLDKKAQAAFIEYLLEGGPPISGAPPPS

39 AMINO ACID MODIFIED PEPTIDE

Modified residues and lipid side-chain conjugation are not represented in the one-letter code.

ABOUT RETATRUTIDE

Retatrutide (LY3437943) is a novel triple agonist peptide that selectively activates the GIP, GLP-1 and Glucagon receptors. By targeting these key incretin pathways, it supports regulation of glucose metabolism, appetite, energy balance and body weight. Retatrutide is under investigation for its potential in obesity, type 2 diabetes, and related metabolic disorders.

- Triple agonist: GIP, GLP-1 and Glucagon receptors
- Investigated for obesity and type 2 diabetes
- Designed for injectable delivery

DESCRIPTION

Retatrutide (LY3437943) is a synthetic, long-acting peptide engineered as a triple agonist targeting the GIP, GLP-1 and Glucagon receptors.

Structural modifications including α-aminoisobutyric acid (Aib), amide modifications, and a lipid side chain enhance enzymatic stability, albumin binding, and biological half-life, making it an important investigational compound for metabolic research.

KEY CHARACTERISTICS

- Triple GIP, GLP-1 and Glucagon receptor agonist
- Modified 39-amino acid peptide
- Long-acting peptide design
- Enhanced stability through structural modifications
- High aqueous solubility after reconstitution
- Lyophilized for long-term storage
- Suitable for laboratory research

RESEARCH APPLICATIONS

- Obesity research
- Type 2 diabetes research
- Metabolic disease studies
- Energy balance investigations
- Appetite regulation research
- Dual and triple incretin pathway research

FOR RESEARCH USE ONLY. NOT FOR HUMAN OR VETERINARY USE.

For professional laboratory and research use only.

Store refrigerated or frozen as recommended.

Protect from light and moisture at all times.

www.olympuspeptide.com