

RETATRUTIDE — REPLACE THE NATIVE LYS-20 ΓGLU-ΓGLU-C20 DIACID LIPIDATION WITH A SINGLE ΓGLU SPACER AND A C18 MONOACID (OLEOYL, CIS-Δ9 OCTADECENOYL) CHAIN ON THE LYS-20 E-AMINE, YIELDING LYS-20(ΓGLU-OLEOYL). ALL OTHER RESIDUES UNCHANGED.

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DISCARDED METABOLIC

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GLUCAGON-LIKE PEPTIDE 1 RECEPTOR

AVERAGE CONFIDENCE	PTM / IPTM	VERDICT
69.7%	0.677 / 0.233	DISCARDED
TARGET	UNIPROT	BINDING PROBABILITY
Glucagon-like peptide 1 receptor	P43220	—

TLDR

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EXECUTIVE SUMMARY

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DETAILED ANALYSIS

no research brief recorded.

RESEARCH BRIEF

no research brief recorded.

SEQUENCES

NATIVE

YAQGTFTSDYSIYLDKQAAKDFVQWLLAGGPSSGAPPPS

MODIFIED

YAQGTFTSDYSIYLDKQAAK(γ Glu-oleoyl)DFVQWLLAGGPSSGAPPPS

CITATIONS

1. **PMID** — (2023) — — Triple-Hormone-Receptor Agonist Retatrutide for Obesity - A Phase 2 Trial
2. **PMID** — (2025) — — Retatrutide-A Game Changer in Obesity Pharmacotherapy
3. **PMID** — (2023) — — Retatrutide, a GIP, GLP-1 and glucagon receptor agonist, for people with type 2 diabetes: a randomised, double-blind, placebo and active-controlled, parallel-group, phase 2 trial
4. **PMID** — (2024) — — The power of three: Retatrutide's role in modern obesity and diabetes therapy
5. **PMID** — (2024) — — Effects of once-weekly subcutaneous retatrutide on weight and metabolic markers: A systematic review and meta-analysis of randomized controlled trials
6. **PMID** — (2024) — — Triple hormone receptor agonist retatrutide for metabolic dysfunction-associated steatotic liver disease: a randomized phase 2a trial
7. **PMID** — (2026) — — Retatrutide for the treatment of obesity, obstructive sleep apnea and knee osteoarthritis: Rationale and design of the TRIUMPH registrational clinical trials
8. **PMID** — (2025) — — Effects of retatrutide on body composition in people with type 2 diabetes: a substudy of a phase 2 trial

9. **PMID** — (2025) — — Efficacy and Safety of Glucagon-Like Peptide-1 Receptor Agonists for Weight Loss Among Adults Without Diabetes: A Systematic Review of Randomized Controlled Trials
10. **PMID** — (2024) — — Seven glucagon-like peptide-1 receptor agonists and polyagonists for weight loss: an updated systematic review and network meta-analysis
11. **PMID** — (2025) — — The promise of glucagon-like peptide 1 receptor agonists (GLP-1RA) for the treatment of obesity: a look at phase 2 and 3 pipelines
12. **PMID** — (2025) — — Efficacy and safety of retatrutide for overweight/obesity or type 2 diabetes: a systematic review and meta-analysis
13. **PMID** — (2026) — — Evaluation of Research Grade Peptides Marketed Directly to Consumers Reveals Extensive Variability in Purity and Measured Abundance
14. **PMID** — (2025) — — Differential effects of glucagon-like peptide-1 receptor agonist classes on blood pressure: a systematic review and network meta-analysis