

RETATRUTIDE — TRP-25 → 7-AZA-TRYPTOPHAN (7-AZA-TRP) SINGLE NON-CANONICAL SUBSTITUTION; REPLACE THE C7 CARBON OF THE INDOLE RING WITH NITROGEN, PRESERVING RING GEOMETRY AND AROMATICITY BUT ADDING AN H-BOND ACCEPTOR AND ALTERING π -ELECTRONICS. ALL OTHER RESIDUES INCLUDING NATIVE LYS-20 LIPIDATION SITE ARE PRESERVED.

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DISCARDED METABOLIC

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GLUCAGON RECEPTOR

AVERAGE CONFIDENCE	PTM / IPTM	VERDICT
77.7%	0.756 / 0.174	DISCARDED
TARGET	UNIPROT	BINDING PROBABILITY
Glucagon receptor	P47871	—

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

YAQGTFTSDYSIYLDKQAAKDFVQ- [7azaW] -LLAGGPSSGAPPPS

CITATIONS

1. **PMID** — (2023) — — Triple-Hormone-Receptor Agonist Retatrutide for Obesity - A Phase 2 Trial
2. **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
3. **PMID** — (2024) — — Triple hormone receptor agonist retatrutide for metabolic dysfunction-associated steatotic liver disease: a randomized phase 2a trial
4. **PMID** — (2025) — — Retatrutide-A Game Changer in Obesity Pharmacotherapy
5. **PMID** — (2024) — — The power of three: Retatrutide's role in modern obesity and diabetes therapy
6. **PMID** — (2024) — — Efficacy and Safety of GLP-1 Medicines for Type 2 Diabetes and Obesity
7. **PMID** — (2024) — — Effects of once-weekly subcutaneous retatrutide on weight and metabolic markers: A systematic review and meta-analysis of randomized controlled 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) — — Semaglutide, Tirzepatide, and Retatrutide Attenuate the Interoceptive Effects of Alcohol in Male and Female Rats
10. **PMID** — (2025) — — Efficacy and safety of retatrutide for overweight/obesity or type 2 diabetes: a systematic review and meta-analysis