

Product Datasheet

Nisotirostide

Catalog No. **BP-00103** · CAS **2663844-45-7** · Form **free base** · Physical state **solid** · Color **white to off-white** · Version **1.0** · Revision **2026-10-20**

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Target Neuropeptide Y Receptor		Research area Metabolic Disease
Molecular formula	C₂₃₀H₃₄₃N₅₉O₆₅	SEQUENCE Pro-Lys-Pro-Glu-Lys(Ahx-γGlu-Glu-C18diacid)-Pro-Gly-Glu-Asp-Ala-Ser-Pro-Glu-Glu-Trp-Gln-Arg-Tyr-Tyr-Ala-Glu-Leu-Arg-His-Tyr-Leu-Asn-Trp-Leu-Thr-Arg-Gln-Arg-Tyr-NH ₂
Molecular weight	4974.5405 (free base)	

DESCRIPTION

Nisotirostide (LY-3457263) is a PYY analog agonist studied in type 2 diabetes and obesity.

BIOLOGICAL ACTIVITY

Nisotirostide (LY-3457263) is a long-acting synthetic peptide and selective NPY2 receptor (NPY2R) agonist, designed as a PYY mimetic to engage gut-brain pathways that regulate appetite and energy homeostasis. Activation of central (e.g. hypothalamic arcuate nucleus) and peripheral NPY2R promotes satiety and reduces food intake, supporting body-weight reduction. It is also reported to improve glucose homeostasis, with effects that may not be solely attributable to weight loss. Its mechanism is complementary to incretin pathways; combination with GLP-1 RAs (e.g. semaglutide) or dual GIP/GLP-1 agonists (e.g. tirzepatide) is under clinical evaluation for additive/synergistic weight and glycemic benefit. (Based on Kloock et al., 2023 and contemporary pharmacological/clinical development data; investigational.)

SOLUBILITY

Soluble in H₂O/DMSO

REFERENCES

[1]. Kloock S, et al. Obesity and its comorbidities, current treatment options and future perspectives: Challenging bariatric surgery? Pharmacol Ther. 2023 Nov;251:108549.