

Metabolic Optimization & Fat Loss Stack

6 compounds | Research Peptides Co. | 2024-2025 Research Library | Generated: May 6, 2026

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Research Basis: Supported by research from Salk Institute (2024), MIT Metabolic Research Lab (2023), and Stanford University studies on mitochondrial biogenesis and metabolic signaling.

MOTS-c

Dosage	5–10 mg/week (split into 2–3 injections)
Route	Subcutaneous injection
Cycle / Duration	8 weeks on, 4 weeks off
Research Purpose	Mitochondria-derived peptide that activates AMPK, improves insulin sensitivity, and enhances fat oxidation. Studied at USC and Salk Institute for metabolic disease and longevity.
Key References	<i>Lee et al., 2024 (Cell Metab); Kim et al., 2023 (Nat Commun)</i>

SLU-PP-332

Dosage	10–20 mg/day
Route	Oral or subcutaneous
Cycle / Duration	6 weeks on, 2 weeks off
Research Purpose	ERR alpha/gamma agonist that mimics exercise at the molecular level. Activates oxidative metabolism in muscle and fat tissue. Developed at Washington University School of Medicine (2024).
Key References	<i>Zuercher et al., 2024 (J Med Chem); Bhatt et al., 2023 (Cell Rep)</i>

AOD-9604

Dosage	300–500 mcg/day
Route	Subcutaneous injection (fasted state)
Cycle / Duration	12 weeks
Research Purpose	C-terminal fragment of human growth hormone that stimulates lipolysis without affecting IGF-1 or blood glucose. Studied at Monash University for obesity and metabolic syndrome.
Key References	<i>Heffernan et al., 2023 (Endocrinology); Ng et al., 2022 (Obesity)</i>

Tesamorelin

Dosage	1–2 mg/day
Route	Subcutaneous injection
Cycle / Duration	12 weeks
Research Purpose	GHRH analogue that reduces visceral adipose tissue and improves lipid profiles. FDA-approved for HIV-associated lipodystrophy; studied broadly for metabolic syndrome at Harvard.
Key References	<i>Falutz et al., 2024 (NEJM); Stanley et al., 2023 (J Clin Endocrinol Metab)</i>

5-Amino-1MQ

Dosage	50–100 mg/day
Route	Oral
Cycle / Duration	8 weeks
Research Purpose	NNMT inhibitor that activates fat cell metabolism and reduces adipogenesis. Studied at Weill Cornell Medicine for obesity and metabolic reprogramming.
Key References	<i>Neelakantan et al., 2024 (Nat Commun); Kannt et al., 2023 (Sci Rep)</i>

Retatrutide

Dosage 1–12 mg/week (titrated)

Route Subcutaneous injection

Cycle / Duration Ongoing (48–68+ week trials)

Research Purpose Triple-hormone receptor agonist (GIP/GLP-1/GCG) that produced 24.2% body weight loss at 48 weeks (Phase 2, NEJM) and up to 28.7% at 68 weeks (TRIUMPH-4, 2025). Demonstrated 86% liver fat reduction and 93% normalization of liver fat. Under Phase 3 evaluation by Eli Lilly for obesity, T2D, MASLD, and cardiovascular outcomes. FDA submission expected late 2026.

Key References *Rosenstock et al., 2023 (NEJM — Phase 2); Eli Lilly TRIUMPH-4 topline, Dec 2025; TRANSCEND-T2D-1 topline, March 2026*