SALT

Scientific Amino Laboratory Technologies

Scientific Research Brief Library

RESEARCH USE ONLY — NOT FOR HUMAN OR VETERINARY USE

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Prepared as a website research-reference package. Each compound section summarizes published scientific literature and is separate from SALT's product-specific certificates of analysis (COAs).

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BPC-157 10 mg

SCIENTIFIC RESEARCH BRIEF

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Scientific identity

BPC-157

Research overview

BPC-157 is a synthetic peptide sequence derived from a gastric protein fragment and has been investigated mainly in cell and animal models. Published research has explored tissue-response, gastrointestinal, vascular, tendon/ligament and inflammatory pathways. The evidence base remains predominantly preclinical; robust human efficacy and safety data are limited.

Areas investigated in published research

• Cell migration, angiogenic signaling and nitric-oxide related pathways have been investigated in experimental models.

• Animal studies have examined gastrointestinal mucosal injury and musculoskeletal/tendon models.

• Preclinical findings should not be interpreted as proof of therapeutic benefit in humans.

Selected research references / notes

• Use peer-reviewed reviews and original preclinical studies indexed in PubMed when Ryan builds outbound reference links.

• Clearly label the evidence as preclinical where applicable.

Website implementation note

Research-use reference only. No dosing, administration, treatment or personal-use instructions are provided.

Important research disclaimer

This document summarizes published scientific literature for educational and research-reference purposes only. It is not medical advice and does not provide dosing, administration, treatment, diagnostic or personal-use instructions. Published findings may involve cell systems, animals, investigational clinical products, approved pharmaceutical products, different formulations or different routes of administration. Such findings do not establish that SALT research material has the same identity, bioavailability, safety, effectiveness or regulatory status. SALT products are intended only for lawful laboratory, analytical and scientific research.

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TB-500 5 mg

SCIENTIFIC RESEARCH BRIEF

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Scientific identity

TB-500 / thymosin-beta-4-related research

Research overview

TB-500 is a research product name commonly associated with thymosin-beta-4-related peptide material. Thymosin beta-4 (Tbeta4) is a naturally occurring actin-binding peptide with extensive experimental literature concerning cell migration, angiogenesis, inflammation and tissue repair. A commercial TB-500 material should not automatically be described as identical to full-length endogenous Tbeta4 unless its sequence and identity documentation establish that relationship.

Areas investigated in published research

• Tbeta4 binds G-actin and participates in cytoskeletal regulation.

• Experimental research has examined cell migration, angiogenesis, inflammatory signaling and tissue-repair models.

• Clinical research exists for particular Tbeta4 formulations/indications, but those results cannot automatically be attributed to every TB-500 research material.

Selected research references / notes

• Goldstein et al., 'Advances in the basic and clinical applications of thymosin beta 4,' Expert Opin Biol Ther. 2015. PMID 26096726.

• Goldstein et al., 'Thymosin beta4: structure, function, and biological properties supporting current and future clinical applications.' PMID 20536467.

Website implementation note

Ryan should keep TB-500 nomenclature distinct from full-length thymosin beta-4 unless SALT's identity testing confirms the exact molecular identity.

Important research disclaimer

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TB4 5 mg

SCIENTIFIC RESEARCH BRIEF

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Scientific identity

Thymosin beta-4 (Tbeta4)

Research overview

Thymosin beta-4 is a naturally occurring 43-amino-acid peptide and a major intracellular G-actin-sequestering molecule. Research has investigated its roles in cytoskeletal dynamics, cell migration, angiogenesis, inflammatory modulation and tissue-repair processes.

Areas investigated in published research

• Tbeta4 regulates actin polymerization through G-actin binding.

• Preclinical models have investigated dermal, corneal, cardiac and other injury/repair contexts.

• Some clinical trials have evaluated specific Tbeta4 formulations; study results are formulation- and indication-specific.

Selected research references / notes

• Goldstein AL, Hannappel E, Kleinman HK. Trends Mol Med. 2005. PMID 16099219.

• Goldstein et al. Expert Opin Biol Ther. 2015. PMID 26096726.

• Progress on the Function and Application of Thymosin beta4. Front Endocrinol. 2021. PMID 34992578.

Website implementation note

Research summary only; it does not establish safety or effectiveness of SALT material for any human use.

Important research disclaimer

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MOTS-c 10 mg

SCIENTIFIC RESEARCH BRIEF

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Scientific identity

MOTS-c

Research overview

MOTS-c is a mitochondrial-derived peptide encoded within mitochondrial 12S rRNA. Laboratory research has examined its relationship to cellular metabolism, stress-response signaling, AMPK-related pathways and metabolic homeostasis. Human research is much more limited than the preclinical literature.

Areas investigated in published research

• MOTS-c has been studied as a mitochondrial signaling peptide involved in cellular adaptation to metabolic stress.

• Animal and cell studies have examined glucose metabolism, exercise-related biology and mitochondrial-nuclear signaling.

• Human translational evidence remains limited and should be described cautiously.

Selected research references / notes

• Use primary peer-reviewed MOTS-c literature indexed in PubMed; distinguish animal/cell findings from human observations.

• Avoid converting mechanistic findings into claims of treatment, performance enhancement or disease prevention.

Website implementation note

Research-use reference only.

Important research disclaimer

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NAD+ 500 mg

SCIENTIFIC RESEARCH BRIEF

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Scientific identity

Nicotinamide adenine dinucleotide (NAD+)

Research overview

NAD+ is an essential cellular redox cofactor and signaling metabolite involved in energy metabolism, mitochondrial function and enzyme systems including sirtuins and PARPs. Much human intervention research concerns NAD+ precursors such as nicotinamide riboside (NR) and nicotinamide mononucleotide (NMN), not administration of NAD+ itself.

Areas investigated in published research

• NAD+ participates in redox reactions and cellular energy metabolism.

• NAD metabolism is an active area of ageing and metabolic research.

• Human trials of NAD+ precursors generally show biochemical target engagement, while clinical outcome findings remain heterogeneous.

• Evidence for parenteral NAD+ itself is substantially more limited than evidence for oral precursors.

Selected research references / notes

• Vinten et al. Nat Metab. 2025. DOI 10.1038/s42255-025-01387-7; PMID 41083806.

• Gallagher & Emmanuel. Ageing Res Rev. 2026;116:103057. PMID 41655607.

Website implementation note

Do not present NR/NMN trial outcomes as though they were trials of SALT NAD+ 500 mg.

Important research disclaimer

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GHK-Cu 50 mg

SCIENTIFIC RESEARCH BRIEF

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Scientific identity

GHK-Cu (copper tripeptide)

Research overview

GHK-Cu is the copper complex of glycyl-L-histidyl-L-lysine, a naturally occurring tripeptide found in human plasma and other biological fluids. Research has investigated extracellular-matrix regulation, collagen-related processes, angiogenesis, antioxidant signaling and inflammatory pathways.

Areas investigated in published research

• Preclinical studies report effects on extracellular-matrix synthesis and cellular repair pathways.

• A 2026 systematic review identified a predominantly preclinical literature with only a small number of randomized clinical studies.

• The limited clinical literature does not justify broad therapeutic claims.

Selected research references / notes

• 'The Regenerative Potential of GHK-Cu in Aesthetic Medicine.' 2026 systematic review. PMID 42619529.

• 'The potential of GHK as an anti-aging peptide.' PMID 35083444.

Website implementation note

Research-use reference only; findings from topical/formulated clinical studies should not be generalized to other routes or SALT research material.

Important research disclaimer

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GLP-3 - Retatrutide

SCIENTIFIC RESEARCH BRIEF

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Scientific identity

Retatrutide (SALT product name: GLP-3)

Research overview

Retatrutide is an investigational peptide agonist designed to engage GIP, GLP-1 and glucagon receptors. It has been studied in randomized clinical trials for metabolic outcomes. The compound remains investigational; research results should be described as findings from specific clinical-trial material and should not be presented as evidence that SALT's research material is approved for treatment.

Areas investigated in published research

• Triple-receptor agonism (GIP/GLP-1/glucagon) is the central pharmacologic research concept.

• Randomized clinical studies have investigated body-weight and metabolic endpoints.

• Clinical-trial outcomes relate to controlled investigational drug products and protocols, not SALT research vials.

Selected research references / notes

• Jastreboff et al. Retatrutide for Obesity - phase 2 clinical literature (New England Journal of Medicine, 2023).

• Use the trial publication and ClinicalTrials.gov/FDA materials as primary references when linking research.

Website implementation note

Applies to SALT GLP-3 10 mg, 15 mg, 20 mg and 40 mg strengths. Same compound research brief; strength-specific COAs should be linked separately.

Important research disclaimer

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GLP-2 - Tirzepatide

SCIENTIFIC RESEARCH BRIEF

RESEARCH USE ONLY - NOT FOR HUMAN OR VETERINARY USE

Scientific identity

Tirzepatide (SALT product name: GLP-2)

Research overview

Tirzepatide is a dual GIP and GLP-1 receptor agonist with extensive randomized human clinical-trial literature. FDA-approved tirzepatide drug products exist; however, those approvals and clinical results belong to the approved drug products and do not confer approval, equivalence, safety or effectiveness on SALT research material.

Areas investigated in published research

• Dual GIP/GLP-1 receptor agonism is the principal pharmacologic mechanism studied.

• SURMOUNT trials evaluated tirzepatide in large randomized controlled studies.

• Approved-drug labeling, manufacturing controls and clinical evidence must not be represented as applying to SALT research material.

Selected research references / notes

• Jastreboff et al. N Engl J Med. 2022;387:205-216. DOI 10.1056/NEJMoa2206038.

• Jastreboff et al. N Engl J Med. 2025;392:958-971. PMID 39536238.

• Aronne et al. N Engl J Med. 2025;393:26-36. PMID 40353578.

Website implementation note

Applies to SALT GLP-2 10 mg and 15 mg. Keep the scientific name 'tirzepatide' visible in the research brief even when GLP-2 is the storefront product name.

Important research disclaimer

This document summarizes published scientific literature for educational and research-reference purposes only. It is not medical advice and does not provide dosing, administration, treatment, diagnostic or personal-use instructions. Published findings may involve cell systems, animals, investigational clinical products, approved pharmaceutical products, different formulations or different routes of administration. Such findings do not establish that SALT research material has the same identity, bioavailability, safety, effectiveness or regulatory status. SALT products are intended only for lawful laboratory, analytical and scientific research.