2025

Prime Peptide® Complexes: Innovative Solutions for Health and Active Longevity

A New Era in Nutriceuticals: Peptide Technologies

Innovative Solutions for Health and Active Longevity

Contents

PRIME PEPTIDE —
A REVOLUTION IN HEALTH SCIENCE

Advancements in modern science are ushering in a new era of health maintenance and active longevity. At the core of this revolution lies the understanding of the key role of peptides—molecular regulators that control recovery and protection processes at the cellular level.

The **PRIME PEPTIDE®** product line features innovative complexes based on bioactive peptides, specifically designed to target various body systems. Developed at the intersection of cutting-edge scientific research and advanced technology, our products embody a fundamentally new approach to health maintenance—by activating the body's natural regeneration and defense mechanisms.

Today, the achievements of peptide science are now accessible to everyone striving for a long and active life.

PRIME PEPTIDE — THE ESSENCE OF YOUTH IN A MOLECULAR FORMULA

A NEW ERA IN NUTRICEUTICALS: PEPTIDE TECHNOLOGIES

Modern health science is undergoing a true revolution with the discovery and study of regulatory peptides—compounds that determine the functioning of all our body systems. Research over recent decades convincingly demonstrates that peptides control the processes of repair, protection, and cellular renewal, acting as natural regulators of youth and health.

The Prime Peptide® range is the culmination of years of research in bioregulation and peptide technologies. Our products are based on scientifically proven mechanisms of action and offer innovative solutions for maintaining health at the cellular level.

What Are Peptides?

Peptides are short chains of amino acids that serve as bioregulators in the body. They participate in the transmission of signals between cells and tissues, control the function of the genetic apparatus, and regulate essential physiological processes.

With age and under the influence of adverse factors, the synthesis of regulatory peptides in the body decreases, which is one of the primary causes of aging and the development of age-related diseases. Replenishing the peptide deficit is a key strategy for maintaining health and active longevity.

Unique Characteristics Of Peptides

Natural Efficacy:
- Peptides are naturally occurring compounds in the body.
- They participate in the physiological processes of repair and protection.
- They operate within the body's inherent self-regulatory mechanisms.

Targeted Action:
- Each peptide has a specific "addressing"—it acts on particular tissues and organs.
- It provides precise regulation for the processes that require support.
- It does not exert undue influence on other body systems.

High Biological Activity:
- They are effective even in minimal doses.
- They trigger cascades of biochemical reactions that enhance their positive effects.
- They act at the level of gene expression, influencing the fundamental processes of cellular renewal.

Safety:
- They are non-toxic and free from significant side effects.
- They are suitable for long-term use.
- Their physiological mode of action eliminates the risk of overdose.

Benefits Of Prime Peptide® Complexes

Scientifically Substantiated Efficacy:
- Every product has undergone comprehensive laboratory testing.
- Their effectiveness is confirmed by clinical data.
- Their mechanisms of action have been studied at molecular and cellular levels.

Synergy of Components:
Peptides work in concert with carefully selected bioactive substances. Each component enhances the effect of the others, creating multi-level protection. This comprehensive impact ensures maximum results.

Innovative Manufacturing Technologies:
- Utilization of advanced peptide synthesis methods.
- Modern systems for delivering active components to cells.
- High-tech formulations that ensure stability and bioavailability.

A Systemic Approach to Health:
- Targeting the causes rather than just the symptoms.
- Supporting natural repair and protection mechanisms.
- Delivering long-term effects aimed at preventing age-related changes.

Principles Of Prime Peptide® Product Development

In creating each product of the Prime Peptide range, we adhere to strict scientific principles.

Evidence-Based Approach:
- Use only components whose effectiveness is confirmed by scientific research.
- Conduct thorough analysis of preclinical and clinical trial data.
- Continuously update formulas in line with the latest scientific discoveries.

Safety:
- Rigorous quality control of raw materials.
- Testing of finished products.
- Compliance with international manufacturing standards.

Synergy and Components:
- Development of balanced formulas.
- Consideration of the interactions among all components.
- Optimal dosages to achieve maximum efficacy.

Bioavailability:
- Use of innovative delivery systems for active substances.
- Ensuring the stability of components.
- Maximizing absorption and effectiveness.

PEPTIDE-BASED CELL PROGRAMMING: A REVOLUTION IN BODY BIOREGULATION

Peptide-based cell programming is an advanced bioregulatory technology that uses short biologically active peptides to precisely control cellular processes. These molecular structures serve as high-precision informational carriers that transmit specific instructions at the cellular and subcellular levels.

At the core of peptide programming lies the principle of molecular recognition. Each peptide has a unique amino acid sequence that determines its three-dimensional structure and, consequently, its functional specificity. Once inside the body, peptides selectively bind to receptors on the cell membrane or penetrate into the cell, where they interact with specific genetic structures and signaling proteins.

This interaction triggers a cascade of biochemical reactions that lead to the activation or suppression of specific genes. In effect, the peptide reprograms the cell, directing its metabolism in a desired direction—enhancing the synthesis of structural proteins, activating antioxidant defense systems, regulating inflammatory processes, or stimulating tissue regeneration.

What makes peptide programming unique is its high selectivity and physiological compatibility. Unlike many pharmaceutical drugs, peptides act with pinpoint accuracy, without affecting healthy systems of the body. They target only those cells and tissues in need of correction, avoiding unwanted systemic effects. Moreover, as naturally occurring compounds, peptides are easily integrated into the body's metabolic processes and do not accumulate in tissues.

Modern research shows that targeted peptide programming enables effective control over cellular aging, tissue repair, immune response, and metabolic balance—opening new horizons in preventive medicine and improving overall quality of life.

IPH Technology: An Innovative Method for Producing Peptide Complexes

IPH technology is a groundbreaking method behind the creation of Prime Peptide complexes — a place where science meets nature. At its core is a unique ultrasound-assisted technique that gently extracts valuable peptides from marine organisms, plants, and fungi, preserving their natural potency and effectiveness. Imagine a process where sound waves delicately open cells, releasing the most precious bioactive components — without aggressive chemical interference.

It all begins with meticulous raw material selection. We use only eco-friendly marine organisms, algae, medicinal mushrooms, and plant-based sources rich in high-quality proteins. Each material undergoes rigorous testing to meet strict standards of quality and environmental safety — laying the foundation for future peptide complexes.

Ultrasonic cavitation is the heart of the IPH process. In specially designed bioreactors, controlled ultrasonic fields generate microscopic bubbles that collapse, releasing energy capable of gently breaking cell membranes without heating or oxidation. This physical process preserves proteins in their native, biologically active state — a key factor in the future effectiveness of the resulting peptides.

The natural components obtained through this process then undergo multi-stage purification and a tailored enzymatic treatment. This transforms them into highly absorbable peptides of various lengths. We use unique enzyme combinations selected for each raw material type, enabling us to produce peptides with specific properties — from short chains with high penetration capabilities to longer structures with complex biological activity.

Each stage of this process is a true work of biotechnological craftsmanship. We maintain a precise balance of temperature and timing to preserve the biological activity of the peptides, which ultimately become the core of Prime Peptide products. Our engineers monitor dozens of parameters — from pH levels to reactor pressure — to ensure ideal conditions for producing premium peptide complexes.

After enzymatic hydrolysis, the peptides are stabilized using an innovative cryotechnology. Rapid, controlled cooling locks in their three-dimensional structure, preventing denaturation and aggregation. This step is critical, as it is the peptide's spatial configuration that determines its ability to bind with cellular receptors and trigger the desired biological effects.

The main advantage of IPH technology is its ability to guarantee exceptional quality and consistency across every production batch. Unlike many manufacturers, we rely on our own reference standards with purity above 99%, allowing us to precisely control the content of active peptides in each product. Our laboratories are equipped with state-of-the-art analytical instruments — including high-performance chromatographs and mass spectrometers — capable of detecting even the slightest variations in composition.

This comprehensive approach gives Prime Peptide® products unmatched benefits: high bioavailability, targeted cellular action, and no unwanted side effects thanks to their physiological compatibility and natural origin. In other words, choosing Prime Peptide means choosing guaranteed high efficacy — results you can truly feel.

Our technology is a harmonious blend of advanced scientific innovation and deep respect for nature's wisdom, embodied in the structure of peptides. We do not create artificial components — we simply reveal and enhance the healing potential already present in natural sources, delivering to your body the bioregulators it needs for natural restoration and sustained health.

MAIN APPLICATIONS OF THE PRIME PEPTIDE® RANGE

The Prime Peptide® range offers a comprehensive solution for maintaining health and active longevity:

Prime Peptide® Protect
Providing oncoprotective defense, stimulating tissue regeneration, and activating the body's antioxidant systems.

Prime Peptide® Brain
Support for cognitive health, improvement of memory and concentration, and protection of brain cells against age-related changes.

Prime Peptide® Joint
Promoting joint and musculoskeletal health, protecting cartilage, and supporting mobility.

Prime Peptide® Collagen
Enhancing the beauty of skin, hair, and nails, restoring the structure of connective tissue, and preventing age-related changes.

Prime Peptide® Omega
Supporting the immune system, protecting cellular membranes, and regulating inflammatory processes.

Cell protective peptides with bioactive mushroom peptides

Protect

Flagship Peptide Complex

IPH REG – An innovative natural bioregulator with oncoprotective, regenerative, and antioxidant properties.

IPH EP – A peptide complex with a pronounced anti-aging effect that promotes cellular protection, restores functionality, and modulates the expression of key tumor suppressor proteins.

Mechanisms Of Action Of The IPH REG Peptide Complex

Antioxidant Protection and Reduction of Oxidative Stress
- Neutralizes free radical processes.
- Reduces catalase activity by 59.4%.
- Decreases superoxide dismutase activity by 72.2%.
- Lowers xanthine oxidoreductase activity by 44.2%.

Antitumor Potential and Tissue Regeneration
- Stimulates tissue repair.
- Regulates cytokines (IL-33, IFN-γ) and NKT cell activity.
- Accelerates wound healing.

Mechanisms Of Action Of The IPH EP Peptide Complex

Oncoprotective Defense: Activation of p53 Protein
- Increases p53 protein expression by 61.9%.
- Regulates the cell cycle.
- Triggers apoptosis in mutated cells.
- Prevents genetic mutations.

Antioxidant and Anti-Aging Potential
- Boosts melatonin production by 39.2–48.9%.
- Normalizes **SIRT** levels.
- Reduces the **mRNA** expression area of **p16INK4a**.
- Enhances the body's reserve capacities by 49.1–57.2%.
- Slows aging processes by 39.8%.
- Reduces anxiety by 58.9%.
- Improves both psychological and physical aspects of quality of life.

Additional Active Components

Broccoli Extract and Indole-3-Carbinol (I3C):
- Regulate estrogen-dependent tumors.
- Induce apoptosis and suppress the proliferation of abnormal cells.
- Inhibit inflammatory processes and provide antioxidant protection.
- Inhibit virus-induced tumors.

Bioactive Peptides from Mushrooms:
- Activate the immune response (NK cells and macrophages).
- Inhibit the growth of tumor cells.
- Suppress angiogenesis and metastasis.
- Provide DNA protection and antioxidant effects.

Palmitoylethanolamide (PEA):
- Inhibits mast cell activation and suppresses pro-inflammatory cytokines.
- Exerts a neuroprotective effect.
- Regulates the immune response.

Choline Bitartrate:
- Maintains membrane integrity.
- Involved in DNA methylation and protection against mutations.
- Acts as a precursor to acetylcholine.
- Zinc (Bisglycinate) and Selenium (L-Selenomethionine):
- Modulate p53 activity.
- Provide antioxidant protection and regulate the immune system.

Vitamin K2:
- Regulates cell differentiation.
- Modulates signaling pathways of cell growth.
- Promotes osteocalcin synthesis.

Advantages of Prime Peptide® Protect

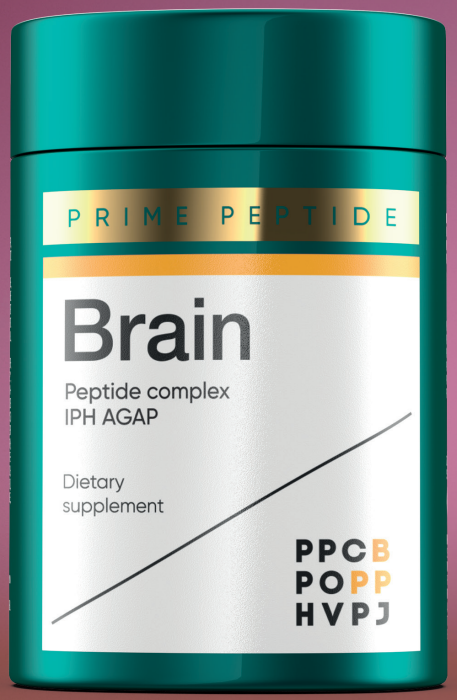
Oncoprotective effect through the reduction of oxidative stress

Antioxidant protection of cells

Anti-inflammatory action

Tissue regeneration and support for cellular balance

Anti-aging effect and enhanced quality of life



Cognitive system peptide with magnesium, choline and nervonic acid

Brain

Flagship Peptide Complex

IPH AGAP – A natural tetrapeptide developed based on research into peptide regulation of brain functions. It penetrates the blood–brain barrier, regulates neurometabolic processes, activates neuronal repair, and enhances cognitive functions.

Mechanisms Of Action Of The Peptide Complex

Regulation of Neurotransmission and Cognitive Functions

- Stimulates the synthesis of neurotransmitters.
- Increases serotonin levels and stabilizes emotional state.
- Modulates NMDA receptor activity, which is involved in learning processes.

Neuroprotection and Antioxidant Action

- Reduces lipid peroxidation.
- Activates antioxidant enzymes (SOD, catalase).
- Preserves the structure of neuronal membranes during ischemia and hypoxia.

Stimulation of Neuroplasticity

- Activates the expression of genes responsible for the synthesis of neurotrophic factors.
- Stimulates the formation of new synaptic connections in the hippocampus.
- Increases the number of mushroom-shaped dendritic spines.

Influence on Brain Energy Metabolism

- Enhances mitochondrial function in neurons.
- Normalizes glucose metabolism.
- Stimulates the activity of the citric acid cycle in mitochondria.

Additional Active Components

Magnesium N-acetyltaurate:
- Improves synaptic plasticity and cognitive functions.
- Protects neural tissue from damage.
- Offers high bioavailability and targeted action.

Choline Bitartrate:
- Involved in the synthesis of acetylcholine – a key neurotransmitter for memory.
- Supports neuronal membrane structure.
- Optimizes neural system metabolism.

Gamma-Aminobutyric Acid (GABA):
- Regulates neural activity and reduces neuronal excitability.
- Supports cognitive functions.
- Stabilizes emotional state.

Vitamin C (L-ascorbic acid):
- Neutralizes free radicals, protecting neurons.
- Involved in neurotransmitter synthesis.
- Supports brain energy metabolism.

Nervonic Acid:
- Participates in myelin biosynthesis.
- Supports the integrity of neuronal cell membranes.
- Exhibits neuroprotective effects.

Zinc Bisglycinate Chelate:
- Accumulates in brain structures such as the hippocampus.
- Regulates NMDA receptor activity.
- Provides antioxidant protection.

Biotin (D-biotin):
- Acts as a cofactor in brain energy metabolism via carboxylases.
- Regulates neurotransmission.
- Influences nerve fiber myelination.

Advantages of Prime Peptide® Brain

Enhanced memory and concentration

Support for cognitive function under mental stress

Neuroprotective effects against oxidative stress

Optimization of emotional state

Improved recovery after stress and injuries

Musculoskeletal system peptide with liposomal glucosamine

Joint

Flagship Peptide Complex

IPH AEN – A natural peptide with chondroprotective and osteoprotective properties, supporting the health of joints and bone tissue.

IPH ESM – A specialized peptide complex containing a unique amino acid sequence.

Mechanisms Of Action Of The IPH AEN Peptide Complex

Support for Articular Cartilage

- Inhibits degenerative processes by 18%.
- Activates type II collagen synthesis by increasing COL2A1 gene expression by 16%.
- Accelerates bone recovery after injuries.

Stimulation of Collagen and Hyaluronic Acid Production

- Increases synthesis by 67%, ensuring improved joint cushioning.
- Enhances cartilage regeneration by 41%.
- Increases the expression of genes responsible for bone and cartilage formation by 19%.

Antitumor Properties

- Elevates p53 protein expression by 55%.
- Reduces the likelihood of tumor growth by 45%.

Mechanisms Of Action Of The IPH ESM Peptide Complex

Pain Reduction and Improved Joint Function
- Significantly decreases pain and stiffness.
- Promotes recovery after physical exertion.

Anti-Inflammatory Effect
- Suppresses inflammatory processes.
- Reduces swelling and pain.

Stimulation of Collagen Synthesis and Cartilage Regeneration
- Aids in the restoration of cartilage tissue.
- Improves cartilage elasticity.

Additional Active Components

Liposomal Glucosamine and MSM with SNL Technology:
- Ensures deep penetration into cartilage cells.
- Enhances the stability of active substances.
- Supports synovial fluid.

Palmitoylethanolamide (PEA):
- Exerts powerful anti-inflammatory action by suppressing mast cell activation.
- Provides neuroprotective effects and reduces neuropathic pain.
- Modulates the endocannabinoid system.

Vitamin C (Ascorbyl Palmitate):
- Delivers deep antioxidant protection for joint tissues.
- Supports the synthesis of collagen types I, II, and III.
- Offers anti-inflammatory and immunomodulatory benefits.

Advantages of Prime Peptide® Joint

Targeted delivery of active components thanks to SNL technology

Potent anti-inflammatory and analgesic effects

Antioxidant support with stimulation of collagen synthesis

Cellular-level joint regeneration

Comprehensive impact on joints, bones, and connective tissues

Integumentary system peptide with marine collagen and mineral chelates

Collagen

Flagship Peptide Complex

IPH AEN – A unique bioactive compound that exerts a pronounced positive effect on the health of skin, hair, and connective tissue. It modulates cellular regeneration processes, enhances the synthesis of collagen and hyaluronic acid, and slows age-related changes.

Mechanisms Of Action Of The Peptide Complex

Stimulation of Collagen and Hyaluronic Acid Synthesis

- Increases the production of collagen and hyaluronic acid by 67%.
- Restores the structure of connective tissue.
- Enhances skin elasticity and strengthens hair.

Enhancement of Cellular Reparative Properties

- Boosts the reparative abilities of cells by 41%.
- Accelerates regeneration processes.
- Improves tissue resistance to damage.

Anti-Aging Effect

- Increases the activity of genes regulating connective tissue growth by 19%.
- Elevates the expression of the p53 protein by 55%.
- Slows degenerative processes in connective tissue by 18%.

Molecular Mechanisms of Action

- Stimulates the expression of the COL2A1 gene by 16%.
- Increases p53 protein synthesis by 55%.
- Induces osteogenesis.

Additional Active Components

Concentrated Marine Collagen:
- Provides a high concentration of key amino acids at an 800 mg dose.
- Forms the dermal framework and supports skin firmness.
- Stimulates keratin production for stronger hair.

Calcium Bisglycinate Chelate:
- Stimulates fibroblast activity and activates neo-collagenesis.
- Involved in keratinization and formation of a protective skin layer.
- Improves nourishment of hair follicles.

Vitamin C (Ascorbic Acid):
- Essential for proper hydroxylation of amino acids.
- Protects skin cells and hair follicles from free radicals.
- Participates in the synthesis of ceramides and other lipids.

Copper (Copper Gluconate):
- Activates lysyl oxidase for cross-link formation in collagen.
- Is a component of superoxide dismutase for antioxidant protection.
- Plays a role in melanin synthesis for hair health.

Biotin (Vitamin B7):
- Essential for keratin production.
- Involved in fatty acid and amino acid metabolism.
- Contributes to collagen synthesis.

Advantages of Prime Peptide® Collagen

Increased skin firmness and elasticity

Strengthening of hair structure and stimulation of hair growth

Fortification of nail plates and prevention of splitting

Slowing of age-related changes in connective tissue

Protection against photoaging and enhanced skin hydration

Immune system peptide with Omega 3-6-9

Omega

Flagship Peptide Complex

IPH T – A highly active bioregulator capable of modulating immune system function, slowing thymic aging, and providing comprehensive protection against age-related and external stress factors.

Mechanisms Of Action Of The Peptide Complex

Activation of Immune Protection Gene Expression
- Promotes deheterochromatinization of chromatin in blood lymphocytes.
- Enhances the activity of nucleolar organizers.
- Stimulates the expression of genes involved in immune responses.

Support for the T-Cell Arm of Immunity
- Activates T-lymphocyte differentiation.
- Increases the number of CD3+ and CD4+ cells.
- Normalizes the CD4+/CD8+ ratio.

Geroprotective Effects on the Thymus
- Restores thymus structure, preventing age-related atrophy.
- Reduces degenerative changes.
- Increases the number of macrophages and enhances thymocyte proliferation.

Stimulation of Immune Tissue Growth
- Expands thymic growth zones by 28%.

Regulation of the Cytokine Response
- Activates the secretion of key cytokines (IL-1, IL-6, TNFα).
- Restores macrophage functionality.

Oncostatic and Stem Cell Regulation
- Suppresses the proliferation of stem and tumor cells.
- Stimulates the proliferation of normal lymphocytes.

Additional Active Components

Optimal balance of Omega 3-6-9:
- Preserve the natural matrix of bioactive compounds.
- Ensure high bioavailability and a synergistic effect.
- Are free from heavy metals and harmful impurities.

Alpha-Linolenic Acid (ALA) from Flaxseed Oil:
- Suppresses pro-inflammatory cytokine activity.
- Regulates prostaglandin levels.
- Protects cells from oxidative stress.

Linoleic Acid (LA) from Safflower Oil:
- Regulates homeostasis and inflammatory processes.
- Supports cellular activity and regeneration.
- Contributes to cardiovascular system protection.

Oleic Acid (OA) from Olive Oil:
- Normalizes lipid metabolism.
- Protects blood vessels and prevents atherosclerotic plaque formation.
- Exhibits anti-inflammatory and antioxidant effects.

Vitamins C, E, and D3:
- Provide antioxidant protection.
- Support cellular regeneration.
- Strengthen the immune system.

Zinc (Bisglycinate Chelate):
- Supports immune function.
- Aids in skin healing.
- Participates in antioxidant protection.

Advantages of Prime Peptide® Omega

A comprehensive approach to protecting cellular membranes and regulating inflammation

Optimal balance of Omega 3-6-9

Support for immunity at the cellular level

Anti-inflammatory effect and protection against aging

Antioxidant protection for cells


PEPTIDES