

BIOACTIVE PRECISION PEPTIDES

MAKE WELLNESS MECHANISMS, EFFICACY, AND CLINICALS

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WHY ARE PRECISION BIOACTIVE PEPTIDES SO IMPORTANT?

What are Peptides?

Peptides are information carriers- they carry biological information from one cell to another for everything in the body to function correctly.

Peptides are naturally occurring in the human body, and we know of at least 7,000 peptides found in the body. They are molecules consisting of amino acids and deliver messages to our cells and DNA. DNA is a matrix of inactive information waiting for peptides to deliver a message of either up-regulating or down-regulating genes.

The body is constantly blending peptides and proteins which are actively involved in the regulation of our body's physiological processes.

Without them, we cannot exist.

PRECISION BIOACTIVE PEPTIDES REGULATE LIFE AT THE DEEPEST LEVEL.

- Effect on the function of cells.
- Increase activity of intracellular systems.
- Increase cell survival.
- Regulate stem cell division.
- Enhance recovery potential
- Regulate gene activity by reducing the activity of “bad” genes or if a “good” gene fades, activates it by stimulating protein reproduction- i.e., protein synthesis.

■ The precision peptides in our formulations carry out the physiological correction of body functions and cell rejuvenation. Our bioactive peptides are organic substances discovered in nature that help our cells work properly and allow our bodies to heal and perform optimally. All this based on precise mechanisms, biochemical pathways, and genetic variations.

■ Targeted Action: Our bioactive precision peptides are designed to interact with specific biological pathways, offering targeted therapeutic effects. This specificity can enhance the efficacy of nutraceuticals by directly addressing the underlying causes of various health conditions.

■ Co-factors such as vitamins and minerals help support bioactive peptides and their ability to influence how our cells and body function- both being necessary for life.

MACHINE LEARNING DISCOVERY OF BIOACTIVE PEPTIDES IN NATURE.

AI-derived bioactive peptides from nature: Intelligence tool which allows us to discover unique bioactive peptides faster and deliver simpler, quicker, and more powerful innovation. Our method is 10 x faster than traditional methods of discovery and 600 x more accurate. The 6-step process allows us to produce the most versatile, efficacious, safe, precise, and unique bioactive peptides.

1. Understand: determine required biochemical pathways.
2. Identify: Screen for the most effective peptides in nature.
3. Refine: Apply filters to select the best peptides.
4. Confirm: Produce a sample of the peptide and test on cells.
5. Validate: Unlock the natural network and test on humans.
6. Produce: Patent and produce peptides to be formulated with synergistic co-factors.

FORMULA ONE: FIT (MODE OF ACTION)

Pathways:

Activation of mTOR and mTORC1

Produces Myostatin Inhibition

Increases Protein Synthesis

TNF- α reduction

MURF11 (reduction of muscle protein breakdown)

Glucose homeostasis

ATP/NAD⁺

SIRT Activation

Methyl donor of homocysteine and methionine

- Increases muscle protein synthesis
- Reduces muscle protein breakdown
- Reduces exercise induced inflammation
- Supports energy homeostasis
- Activates proteins that are vital to cellular functioning
- Increases endogenous levels of NAD⁺
- Regulates cellular metabolism and energy production
- Supports over 100 enzymatic functions related to protein synthesis
- Supports Methylation (MTHFR)

FIT EFFICACY CLAIMS AND CLINICAL TRIALS



54.3% reduction
in lean muscle
loss



60% reduction in
muscle atrophy
inflammation



60% reduction in
IL-6



144% increase in
muscle strength
recovery rate



47% reduction in
muscular fatigue



54% increase in
performance



Increase NAD+
levels by 2.7-fold



Increases BMD by
1% via DEXA
scan within 56
days

FORMULA TWO: LEAN (MODE OF ACTION)

Pathways:

Gut-Brain Axis by regulating mediators of appetite

Ghrelin regulation

Leptin release from adipocyte

Neuromediator Y (NPY) reduction

Adipocyte level (fat storage)

Boosts release of Free Fatty Acids (FFAs)

Lipolysis

Inhibition of PDE-3 (stronger heart)

Increases cAMP [Cyclic adenosine monophosphate]

- Decrease cravings by regulating the balance between ghrelin and leptin
- Mimics the phenotype change from white to beige that occurs in adipose cells
- Stored energy to metabolism-driven cells
- Prevents further storage of fat within adipose tissue
- Enhances physiological lipolysis, boosting release of FFAs
- Inhibition of PDE-3 leading to higher levels of cAMP
- Increases the breakdown of triglycerides
- Intensifies FFA metabolism through UCPs expression
- Promotes higher expression of uncoupling protein in beige adipose tissue

LEAN EFFICACY CLAIMS AND CLINICAL TRIALS

100% weight loss
from fat mass
documented by
computed
tomography

Abdominal fat and
waist circumference
decrease
significantly

6% reduction in fat
mass

2-inch waist
circumference
reduction

Rebalanced body
composition to have
more muscle mass
and less fat mass

Increases metabolic
rate

65% of total fat loss
from trunk area

Continued to lose
weight and reduce
body fat mass after
20 weeks of
supplementation

FORMULA THREE: ENERGIZED (MODE OF ACTION)

Pathways:

Increases serotonin and dopamine

Production of ATP

Modulates mitochondrial bioenergetics

Balances Cortisol levels

Precursor to Catecholamines: dopamine, norepinephrine, and epinephrine

Amino acids attached to peptide bond to enhance bioavailability and absorption

Precursor to Neurotransmitters including tyrosine

Stimulates CNS

Supports CYP1A2

- Increases energy production at the cellular level
- Supports adrenal gland function
- Involved in ATP production and energy metabolism
- Maintains mental performance under stress
- Reduces mental fatigue
- Preserves glycogen storage to be used for energy
- Influences mood and motivation
- Increases alertness, reduces fatigue
- Sustained release: no rapid spike or crash

ENERGIZED EFFICACY CLAIMS AND CLINICAL TRIALS

Increases serotonin
and dopamine levels
to increase energy

Supports adrenal
gland function,
balances cortisol
levels

Improves cognitive
performance

Reduces mental
fatigue

Improved energy
without the jitters

95% confidence
interval in RCTs

Production of ATP
energy

pH regulation in the
body

Maintains mental
performance under
stress

Sustained release
natural caffeine which
does not negatively
affect caffeine
metabolism

FORMULA FOUR: FOCUSED (MODE OF ACTION)

Pathways:

Cerebral circulation

Modulates dopamine, serotonin, and norepinephrine

Reduces oxidative stress

Neuroprotection by preventing neuronal damage

Increase efficiency of nerve impulse transmission

Enhances synaptic communication

Promotes growth of dendrites

Glucose metabolism

Lowers cortisol

Increases BDNF

Improves contrast sensitivity

- Improves cerebral circulation which improves blood flow to the brain and increases delivery of nutrients to brain cells
- Balances Neurotransmitters which play a crucial role in mood regulation, alertness, and focus
- Reduction of Oxidative stress: Protection of brain cells for mental clarity and detoxing from the BBB
- Neuroprotective: Prevents neuronal damage and preserves cognitive function and improves focus
- Improves memory and attention for better performance
- Increases BDNF which plays a crucial role in neuronal health and brain plasticity
- Enhances glucose metabolism in the brain to ensure sufficient energy to brain cells
- Supports structural integrity and fluidity of cell membranes in the brain
- Improved visual performance

FOCUSED EFFICACY CLAIMS AND CLINICAL TRIALS

Improves blood flow
to the brain

Increases delivery of
nutrients through the
Blood Brain Barrier
(BBB)

Influences dopamine,
serotonin, and
norepinephrine for
alertness, focus, and
mood regulation

Antioxidants protect
brain cells from
oxidative stress to
improve mental
clarity

Preserves cognitive
function

Improves focus

Improved memory
and attention

Reduces mental
fatigue

Increases efficiency
of nerve impulse
transmission

Increases BDNF

Ensures the brain
has sufficient energy
for better
performance

Enhances memory

Improved attention
and processing
speed

Short-term memory
support

Long-term memory
support

Improves eye strain
and fatigue

FORMULA FIVE: HYDRATED (BIOACTIVE PEPTIDE SUPPORT)

Pathways:

Synthesis and Activation

Transport and Signaling

Structural Integrity

Fluid balance

Nerve signaling

Absorption

- Adequate levels of electrolytes which ensure enzymes involved in the synthesis and activation of bioactive peptides
- Crucial electrolytes for proper transport of peptides across cell membranes and signaling pathways
- Maintains the structural integrity of bioactive peptides
- Maintains fluid balance and hydration with the proper amount of electrolytes
- Essential for muscle function and nerve signaling
- Faster hydration than water alone
- Composition similar to human plasma, making it an effective hydration drink.

HYDRATED EFFICACY AND SUPPORT CLAIMS

Electrolytes so
support bioactive
peptides and
ensure cellular
hydration

Natural source of
hydration

Maintains structural
integrity of bioactive
peptides

Proper transport of
bioactive peptides
across cell
membranes

Maintains fluid
balance

Maintains muscle
function

Maintains nerve
signaling

FORMULA SIX: CALM (BIOACTIVE PEPTIDE SUPPORT)

Pathways:

Enhances gamma-aminobutyric acid (GABA)

Oxidative Stress (ROS)

Reduction of Cortisol

Alpha Brain Waves

Serotonin and Dopamine

COMT

GAD1

- Enhances the activity of GABA to promote relaxation and anxiety. Calms the CNS to reduce overstimulated brain activity.
- Protects the body from oxidative stress which contributes to an overall sense of calmness.
- Lowers cortisol levels to balance mood and create a sense a calm. (Pull out of fight or flight) Will support HRV level.
- Promotes the generation of alpha brain waves which leads to a state of relaxed alertness.
- Helps the body adapt to stress and maintain balance. Improving resilience to stress and enhancing mood.
- Supports healthy regulation of genetic variations which can lead to chronic stress.

CALM EFFICACY AND SUPPORT CLAIMS

PROMOTES
RELAXATION

REDUCES
CORTISOL LEVELS

SUPPORTS GABA
LEVELS TO CALM
THE CNS

MOOD
REGULATION

IMPROVES THE
BODY'S OVERALL
ENVIRONMENT BY
REDUCING STRESS

NEXT-GENERATION NUTRACEUTICALS

AI and ML to enhance the efficacy, safety, and intention in our formulations and products

Less ingredients

Activated co-factors, coenzymes, and molecules to enhance mechanisms

Focus on biochemical pathways, SNPs, and biological reactions through discovery process and formulations

Endless possibilities as there are trillions of bioactive peptides in nature

Rigorous validation and scientific methods: tested on human tissues, bypassing the GI system, then human clinical trials

No unwanted, unhealthy, inactive ingredients

Delivery systems based on enhanced therapeutic effects. No pill fatigue.

Ongoing research continues to uncover new bioactive peptides and their potential health benefits. Innovations in peptide technology, including enhanced delivery systems and stabilization techniques, are expanding their applications in nutraceuticals.