

Semax

PRODUCT DESCRIPTION

Semax is a synthetic heptapeptide derived from ACTH 4-10 with an appended Pro-Gly-Pro sequence for enhanced metabolic stability and CNS penetration. It exerts nootropic and neuroprotective activity through upregulation of BDNF and NGF via MAPK/ERK and PI3K/Akt signaling, promoting neuronal survival, synaptic plasticity, and neurogenesis. Also modulates dopaminergic and serotonergic neurotransmission with antioxidant, anti-inflammatory, and anti-apoptotic properties.

PRODUCT SPECIFICATIONS

Catalog Number	BPT2883
CAS Number	80714-61-0
Molecular Weight	813.92 Da
Molecular Formula	C37H51N9O10S
Purity	Peak Area by HPLC >=95%
Form	Lyophilized
Source	Synthetic (Chemical Synthesis, SPPS)
Endotoxin	N/A (Synthetic peptide)

AMINO ACID SEQUENCE

One-Letter Code:

H-Met-Glu-His-Phe-Pro-Gly-Pro-OH

Three-Letter Code:

H-His-Met-{D-Glu}-{D-Thr}-Gly-{D-Leu}-{D-Sec}-His-{D-Ile}-{D-Ser}-Pro-{D-His}-{D-Glu}-Pro-{D-Arg}-{D-Pyl}-Gly-{D-Leu}-{D-Tyr}-Pro-{D-Arg}-{D-Pyl}-Pyl-His-OH

RESEARCH APPLICATIONS

Application	Neuroprotection
Biomarker Target	Neurotrophic Factors
Research Area	Neuroscience
Sub-category	Neuroprotection & Cognitive Enhancement

STORAGE & HANDLING

Storage Temperature	-20 deg C
Form	Lyophilized
Stability	Lyophilized product stable for 24 months at -20 deg C
Reconstitution	Reconstitute in sterile water or appropriate buffer
After Reconstitution	Aliquot and store at -20 to -80 deg C
Avoid	Repeated freeze-thaw cycles

AVAILABLE SIZES

Size Options	1 mg, 10 mg
--------------	-------------

Usage

Research use

QUALITY CONTROL

Purity Method

HPLC, Mass Spectrometry (MS)

Identity

Confirmed by ESI-MS or MALDI-TOF

Purity

Peak Area by HPLC >=95%

Documentation

Certificate of Analysis (CoA) available upon request