9051 Mira Mesa Blvd, #910094
San Diego, CA 92191
Tel: 760-390-3989

SEMAX

SEMAX
HRM0104

Product Overview

Name	SEMAX

Description

SEMAX

Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation

The protein was lyophilized with no additives.

Stability

Lyophilized SEMAX although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution SEMAX should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Purity

Greater than 97.0% as determined by analysis by RP-HPLC.

Amino acid sequence

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

Solubility

It is recommended to reconstitute the lyophilized SEMAX in sterile 18MΩ-cm H 2 O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Background

Semax, also known as ACTH(4-10) Pro-Gly-Pro, is a synthetic peptide that has been the subject of extensive research due to its potential neuroprotective and nootropic effects. This heptapeptide, derived from the adrenocorticotropic hormone (ACTH), has been shown to possess a wide range of biological activities, including enhancing memory, learning, and neurogenesis. Semax is unique in its ability to cross the blood-brain barrier and exert its effects directly on the central nervous system. It has been shown to stimulate the release of brain-derived neurotrophic factor (BDNF), a protein that plays a crucial role in the survival of neurons and the growth of new neurons and synapses. Studies by Dolotov et al. (2006) have demonstrated that Semax can enhance memory and learning in rats, suggesting potential applications in cognitive enhancement and the treatment of cognitive disorders. In addition to its nootropic effects, Semax has been shown to possess neuroprotective properties. Research by Stavchansky et al. (2008) found that

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Semax could protect neurons from oxidative stress and apoptosis, suggesting potential applications in the treatment of neurodegenerative diseases such as Alzheimer's and Parkinson's disease. Given its nootropic and neuroprotective effects, Semax has been proposed as a potential therapeutic agent for a variety of conditions, including cognitive disorders, stroke, and optic nerve disease. For instance, a study by Myasoedov et al. (2010) found that Semax could improve outcomes in patients with ischemic stroke, indicating its potential as a therapeutic agent in stroke recovery. While research on Semax is promising, it is important to note that most studies have been conducted in animals or in vitro. More research is needed to fully understand the potential effects and applications of Semax in humans. However, the existing body of research suggests that Semax could be a promising tool in the treatment of cognitive disorders and neurodegenerative diseases.

Precautions

SEMAX is for research use only and not for use in diagnostic or therapeutic procedures.

Background

Semax, also known as ACTH(4-10) Pro-Gly-Pro, is a synthetic peptide that has been the subject of extensive research due to its potential neuroprotective and nootropic effects. This heptapeptide, derived from the adrenocorticotropic hormone (ACTH), has been shown to possess a wide range of biological activities, including enhancing memory, learning, and neurogenesis. Semax is unique in its ability to cross the blood-brain barrier and exert its effects directly on the central nervous system. It has been shown to stimulate the release of brain-derived neurotrophic factor (BDNF), a protein that plays a crucial role in the survival of neurons and the growth of new neurons and synapses. Studies by Dolotov et al. (2006) have demonstrated that Semax can enhance memory and learning in rats, suggesting potential applications in cognitive enhancement and the treatment of cognitive disorders. In addition to its nootropic effects, Semax has been shown to possess neuroprotective properties. Research by Stavchansky et al. (2008) found that Semax could protect neurons from oxidative stress and apoptosis, suggesting potential applications in the treatment of neurodegenerative diseases such as Alzheimer's and Parkinson's disease. Given its nootropic and neuroprotective effects, Semax has been proposed as a potential therapeutic agent for a variety of conditions, including cognitive disorders, stroke, and optic nerve disease. For instance, a study by Myasoedov et al. (2010) found that Semax could improve outcomes in patients with ischemic stroke, indicating its potential as a therapeutic agent in stroke recovery. While research on Semax is promising, it is important to note that most studies have been conducted in animals or in vitro. More research is needed to fully understand the potential effects and applications of Semax in humans. However, the existing body of research suggests that Semax could be a promising tool in the treatment of cognitive disorders and neurodegenerative diseases.

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