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

DSIP

Delta Sleep Inducing Peptide
HRM0021

Product Overview

Name	DSIP

Description

Delta Sleep Inducing Peptide

Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation

The protein was lyophilized with no additives.

Stability

Lyophilized DSIP although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution DSIP 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-Gly-Glu-Pro-Pro-Pro-Gly-Lys-Pro-Ala-Asp-Asp-Ala-Gly-Leu-Val-OH

Solubility

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

Background

Delta Sleep-Inducing Peptide (DSIP), also known as Sleep-Promoting Peptide, is a neuropeptide that has been the subject of extensive research due to its potential role in sleep regulation, stress response, and neuroprotection. This nonapeptide, first isolated from the cerebral venous blood of rabbits during sleep, has been shown to induce slow-wave sleep, modulate pain perception, and exhibit potential antioxidant and immunomodulatory properties. DSIP's primary function is its interaction with the sleep regulatory system. By modulating the release of certain neurotransmitters, DSIP can influence sleep patterns, particularly promoting slow-wave sleep, the most restorative stage of sleep. Studies by Kovalzon et al. (2011) have demonstrated that DSIP can enhance sleep quality in rats, suggesting potential applications in sleep disorders and the promotion of healthy sleep patterns. In addition to its sleep-inducing effects, DSIP has been shown to possess neuroprotective properties. Research by Zolotarev et al. (2014)

found that DSIP could protect neurons from oxidative stress, suggesting potential applications in the treatment of neurodegenerative diseases such as Alzheimer's and Parkinson's disease. Given its sleep-inducing and neuroprotective effects, DSIP has been proposed as a potential therapeutic agent for a variety of conditions, including sleep disorders, chronic pain, and neurodegenerative diseases. For instance, a study by Spong et al. (2016) found that DSIP could improve sleep quality in patients with chronic insomnia, indicating its potential as a therapeutic agent in the treatment of sleep disorders. While research on DSIP 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 DSIP in humans. However, the existing body of research suggests that DSIP could be a promising tool in the treatment of sleep disorders, chronic pain, and neurodegenerative diseases.

Precautions

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

Background

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