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

Bremelanotide

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HRM0007

Product Overview

Name	Bremelanotide

Description

Bremelanotide

Synonyms

BRICK1 SCAR/WAVE Actin-Nucleating Complex Subunit, Haematopoietic Stem/Progenitor Cell Protein 300, Homolog (Arabidopsis Thaliana), Chromosome 3 Open Reading Frame 10, Probable Protein BRICK1, BRICK1, HSPC300, MDS027, C3orf10.

Introduction

BRK1 is a member of the BRK1 family. BRK1 takes part in regulating actin and microtubule organization and is a fragment of a WAVE complex which activates the Arp2/3 complex.

Source

Escherichia Coli.

Physical Appearance

Sterile Filtered clear solution.

Formulation

The BRK1 solution (0.5mg/ml) contains 20mM Tris-HCl buffer (pH 8.0), 1mM DTT, 150mM NaCl and 20% glycerol.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

Purity

Greater than 90% as determined by SDS-PAGE.

Amino acid sequence

MGSSHHHHHH SSGLVPRGSH MGS MAGQEDP VQREIHQDWA NREYIEIITS SIKKIADFLN SFDMSCRSRL ATLNEKLTAL ERRIEYIEAR VTKGETLT

Precautions

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

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Background

Bremelanotide (PT-141), a synthetic heptapeptide, is a novel therapeutic agent primarily utilized for the treatment of sexual dysfunction. This paper provides an exhaustive review of Bremelanotide, detailing its biochemical structure, mechanism of action, therapeutic applications, and future prospects in clinical medicine. Bremelanotide (PT-141), derived from Melanotan II, is a synthetic peptide developed for its role in treating sexual dysfunction in both men and women (Clayton et al., 2016). This paper presents a comprehensive examination of Bremelanotide, its biological properties, and potential therapeutic uses. Bremelanotide acts as a non-selective agonist of the melanocortin receptors, primarily MC3R and MC4R, present in the central nervous system. The peptide initiates its action in the hypothalamus, leading to downstream effects on sexual desire and arousal (King et al., 2007). The US Food and Drug Administration approved Bremelanotide for the treatment of premenopausal women with hypoactive sexual desire disorder (HSDD) in 2019. In clinical trials, it demonstrated efficacy in enhancing sexual desire and reducing distress associated with HSDD (Kingsberg et al., 2019). While the current focus of Bremelanotide is on treating sexual dysfunction, its future potential may extend to other areas due to its unique mechanism of action. Further research is needed to explore the full therapeutic potential of this intriguing peptide. In conclusion, Bremelanotide represents a significant advance in sexual dysfunction therapeutics, with potential implications extending beyond this realm.