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BPC-157

BPC-157 Pentadecapeptide
HRM0006

Product Overview

Name	BPC-157

Description

BPC-157 Pentadecapeptide

Immunogen

Anti-human BPGM mAb, is derived from hybridization of mouse F0 myeloma cells with spleen cells from BALB/c mice immunized with recombinant human BPGM amino acids 1-259 purified from E. coli.

Synonyms

Bisphosphoglycerate mutase, EC 5.4.2.4, BPGM, 2,3-bisphosphoglycerate mutase erythrocyte, 2,3-bisphosphoglycerate synthase, BPG-dependent PGAM.

Introduction

BPGM is found at high concentrations in red blood cells where it binds to and decreases the oxygen affinity of hemoglobin. PGM deficiency increases the oxygen affinity of cells. BPGM is a multifunctional enzyme that catalyzes 2,3-DPG synthesis through its synthetase activity, and 2,3-DPG degradation using its phosphatase activity. BPGM has phosphoglycerate phosphomutase activity. Mutations in BPGM cause hemolytic anemia. BPGM catalyzes the reaction of EC 5.4.2.1 (mutase) and EC 3.1.3.13 (phosphatase), but with a reduced activity.

Physical Appearance

Sterile filtered colorless solution.

Formulation

1mg/ml containing PBS, pH-7.4, 10% Glycerol and 0.02% Sodium Azide.

Applications

BPGM antibody has been tested by ELISA, Western blot analysis, Flow cytometry and ICC/IF to assure specificity and reactivity. Since application varies, however, each investigation should be titrated by the reagent to obtain optimal results.

Type

Mouse Anti Human Monoclonal.

Clone

PA2E11AT.

Ig Subclass

Mouse IgG 2a heavy chain and K light chain.

Purification Method

BPGM antibody was purified from mouse ascitic fluids by protein-A affinity chromatography.

Storage Procedures

For periods up to 1 month store at 4°C, for longer periods of time, store at -20°C. Prevent freeze thaw cycles.

Stability / Shelf Life

12 months at -20°C. 1 month at 4°C.

Precautions

BPC-157 is for research use only and not for use in diagnostic or therapeutic procedures.

Background

BPC-157, short for Body Protection Compound-157, is a synthetic peptide that has garnered significant attention in the field of regenerative medicine and sports science. This peptide, derived from a portion of the human gastric juice protein known as BPC, exhibits remarkable healing and tissue regeneration properties. BPC-157 has shown promise in various preclinical and clinical studies, demonstrating its potential for the treatment of a wide range of injuries and disorders. The research on BPC-157 encompasses investigations into its mechanisms of action, efficacy, safety, and potential therapeutic applications. Studies have elucidated the peptide's ability to enhance angiogenesis, promote collagen synthesis, modulate inflammatory responses, and protect against oxidative stress. These properties make BPC-157 an intriguing candidate for accelerating tissue healing, reducing inflammation, and improving overall recovery outcomes. Preclinical studies have revealed the beneficial effects of BPC-157 in several injury models. For instance, BPC-157 has demonstrated its potential in accelerating tendon and ligament healing, mitigating muscle damage, and promoting bone regeneration. These findings suggest that BPC-157 could be a valuable therapeutic tool in orthopedic medicine and sports-related injuries. Furthermore, BPC-157 has exhibited promising effects on gastrointestinal health. Studies have highlighted its ability to protect and heal the gut lining, reduce ulcer formation, and alleviate symptoms associated with inflammatory bowel disease. These observations open up avenues for BPC-157 as a potential treatment for gastrointestinal disorders. In addition to its regenerative properties, BPC-157 has shown potential in neurological and psychiatric conditions. Research has indicated its neuroprotective effects, with implications for the treatment of traumatic brain injury, stroke, and neurodegenerative disorders. Preliminary studies also suggest BPC-157's potential as an antidepressant and anxiolytic agent. Despite the promising findings, further research is needed to fully understand the mechanisms underlying BPC-157's actions and to assess its long-term safety and efficacy. Clinical trials are underway to explore its potential therapeutic applications in humans, including its use in tendon and ligament repair, inflammatory bowel disease, and neurodegenerative disorders. This

comprehensive review aims to summarize the current state of research on BPC-157, providing an overview of its mechanisms of action and therapeutic potential. By examining relevant studies and findings, we aim to shed light on the diverse applications of BPC-157 and its implications for regenerative medicine, sports science, and various disease