Recombinant Human BMP3 / Bone Morphogenetic Protein 3, Animal Free & Carrier Free

Cat #: C-CYP247

Size: 5μg, 20μg, 100μg, 500μg, 1mg

Shipping: Blue Ice

Product Overview

Bone morphogenetic protein 3, also known as osteogenic, is a protein in humans that is encoded by the BMP3 gene. The protein encoded by this gene is a member of the transforming growth factor-beta superfamily. It, like other bone morphogenetic proteins (BMP's), is known for its ability to induce bone and cartilage development. It is a disulfide-linked homodimer. It negatively regulates bone density. BMP3 is an antagonist to other BMP's in the differentiation of osteogenic progenitors. It is highly expressed in fractured tissues.

Product Information

Source: *Escherichia Coli*.

Purity: >95% as determined by SDS-PAGE. Ni-NTA chromatography.

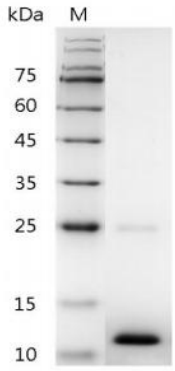
Biological Activity: Measure by its ability to inhibit BMP2-induced alkaline phosphatase production by ATDC5 cells. The ED_{50} for this effect is < 10 μg/mL.

Endotoxin: <0.1EU per 1μg of the protein by the LAL method.

Amino acid sequence:

MQWIEPRNCARRYLKVDFADIGWSEWIISPKSFDAYYCSGACQFPMPKSLKPSNHATIQSIVRAVGVVPGIPEPCCVPEKMSSLSILFFDEN KNVVLKVYPNMTVESCACR with polyhistidine tag at the C-terminus.

Formulation: Lyophilized from a sterile filtered aqueous solution in 20 mM sodium citrate, 0.2 M NaCl, pH 3.5



SDS-PAGE analysis of recombinant human BMP3

Usage Method

1. Before opening, it is recommended to centrifuge at 3000-3500 rpm for 5 minutes.

2. Reconstitute to a concentration of 0.1-1.0 mg/mL in sterile distilled H_2O. Allow the solution to sit at room temperature for at least 20 minutes to ensure complete dissolution. Avoid vigorous vortexing.

3. The reconstituted solution can be stored at 2-8°C for up to 1 week.

4. For long-term storage, it is recommended to further dilute the solution with a carrier protein (such as 0.1% BSA, 10% FBS, or 5% HSA) to a concentration of no less than 10 μg/mL and aliquot for storage at -20°C to -80°C for 3 to 6 months. If serum-free experiments are required, a 5% trehalose solution can be used as a carrier instead. Avoid repeated freeze-thaw cycles.

Storage

Physical Appearance	Storage	Stability
Lyophilized powder	-20°C to -80°C	1 year
Reconstitution (initial)	2°C to 8°C	Less than 1 week
Reconstitution (after dilution)	-20°C to -80°C	3 to 6 months

Note

The reagent is only used in the field of scientific research, not suitable for clinical diagnosis or other purposes.