Recombinant Human BMP5 / Bone Morphogenetic Protein 5, Animal Free & Carrier Free

Cat #: C-CYP251

Size: 5μg, 20μg, 100μg, 500μg, 1mg

Shipping: Blue Ice

Product Overview

Bone morphogenetic protein 5 is a protein known for their ability to induce bone and cartilage development. BMP5 may play a role in certain cancers. Like other BMP's BMP5 is inhibited by chordin and noggin. It is expressed in the trabecular meshwork and optic nerve head and may have a role in the development and normal function. It is also expressed in the lung and liver . Bone morphogenetic proteins were originally identified by an ability of demineralized bone extract to induce endochondral osteogenesis in vivo in an extraskeletal site. This protein may act as an important signaling molecule within the trabecular meshwork and optic nerve head and may play a potential role in glaucoma pathogenesis.

Product Information

Source: *Escherichia Coli*.

Purity: >98% as determined by SDS-PAGE. Ni-NTA chromatography.

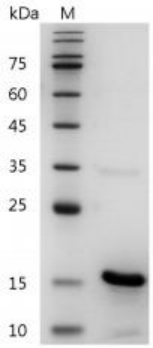
Biological Activity: Measure by its ability to induce alkaline phosphatase production by ATDC5 cells.The ED_{50} for this effect is < 0.17 μg/mL.

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

Amino acid sequence:

MAANKRKNQNRNKSSSHQDSSRMSSVGDYNTSEQKQACKKHELYVSFRDLGWQDWIIAPEGYAAFYCDGECSFPLNHMNATNHAIVQ TLVHLMFPDHVPKPCCAPTKLNAISVLYFDDSSNVILKKYRNMVVRSCGCH 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 BMP5

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.