Recombinant Human BMP2 / Bone Morphogenetic Protein 2, Animal Free & Carrier Free

Cat #: C-CYP246

Size: 5μg, 20μg, 100μg, 500μg, 1mg

Shipping: Blue Ice

Product Overview

BMP2 like other bone morphogenetic proteins, plays an important role in the development of bone and cartilage. It is involved in the hedgehog pathway, TGF beta signaling pathway, and in cytokine- cytokine receptor interaction. It is also involved in cardiac cell differentiation and epithelial to mesenchymal transition. Like many other proteins from the BMP family, BMP-2 has been demonstrated to potently induce osteoblast differentiation in a variety of cell types. BMP-2 may be involved in white adipogenesis and may have metabolic effects.

Product Information

Source: *Escherichia Coli*.

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

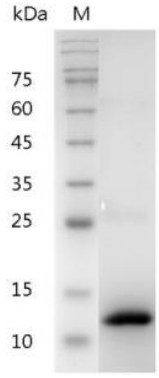
Biological Activity: Measure by its ability to induce alkaline phosphatase production by ATDC5 cells. The ED50 for this effect is < 1.0 μg/mL.

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

Amino acid sequence:

MQAKHKQRKRLKSSCKRHPLYVDFSDVGWNDWIVAPPGYHAFYCHGECPFPLADHLNSTNHAIVQTLVNSVNSKIPKACCVPTELSAISM LYLDENEKVVLKNYQDMVVEGCGCR 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 BMP2

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.