

Recombinant Human/Mouse/Rat BMP-4 Protein

Catalog No.: RP02512 **Recombinant** **1 Publications**

Sequence Information

Species	Gene ID	Swiss Prot
Human	652	P12644

Tags

C-His

Synonyms

BMP2B; BMP2B1; MCOP56; OFC11;
ZYME;BMP4;BMP2B1;MCOP56;OFC11;ZY
ME

Product Information

Source	Purification
<i>E. coli</i>	> 95% by SDS- PAGE.

Calculated MW **Observed MW**

Endotoxin

<0.1EU/μg

Formulation

Lyophilized from a 0.22 μm filtered solution of 20 mM sodium carbonate, pH 9.0.

Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

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Background

Bone morphogenetic protein 4 is a protein that in humans is encoded by BMP4 gene. BMP4 is found on chromosome 14q22-q23. BMP4 is a member of the bone morphogenetic protein family which is part of the transforming growth factor-beta superfamily. The superfamily includes large families of growth and differentiation factors. BMP4 is highly conserved evolutionarily. BMP4 is found in early embryonic development in the ventral marginal zone and in the eye, heart blood and otic vesicle.

Basic Information

Description

Recombinant Human/Mouse/Rat BMP-4 Protein is produced by Escherichia coli expression system. The target protein is expressed with sequence of Human BMP-4 fused with polyhistidine tag at the C-terminus

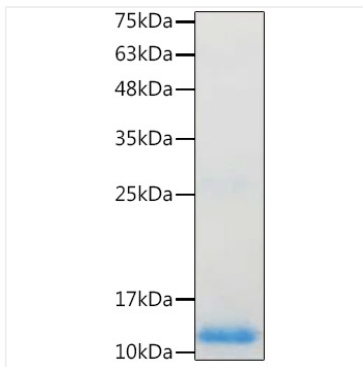
Bio-Activity

Measured by its ability to induce alkaline phosphatase production by ATDC5 mouse chondrogenic cells. The ED₅₀ for this effect is 30.3-121.2 ng/mL, corresponding to a specific activity of 8.25×10³~3.30×10⁴ units/mg.

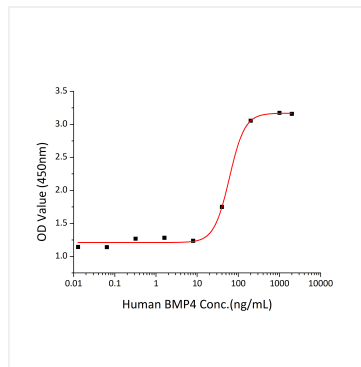
Storage

Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt. After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week. Avoid repeated freeze/thaw cycles.

Validation Data



Recombinant Human BMP-4 Protein was determined by SDS-PAGE with Coomassie Blue, showing bands at 12 kDa.



Recombinant Human/Mouse/Rat BMP-4 induce alkaline phosphatase production by ATDC5 mouse chondrogenic cells. The ED₅₀ for this effect is 30.3-121.2 ng/mL, corresponding to a specific activity of $8.25 \times 10^3 \sim 3.30 \times 10^4$ units/mg.