

RP02512S1

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Recombinant Human/Mouse/Rat Mature BMP-4 Protein

Catalog No.: RP02512S1

Recombinant

1 Publications

Sequence Information

Species	Gene ID	Swiss Prot
CHO cells	652	P12644

Tags

No-Tag

Synonyms

BMP4; BMP2B; DVR4; Bone morphogenetic protein 4; BMP-4; Bone morphogenetic protein 2B; BMP-2B

Product Information

Source

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 freeze-thaw cycles.

Purification

≥ 95 % as determined by SDS-PAGE.

Endotoxin

< 0.01 EU/μg of the protein by LAL method

Formulation

Lyophilized from a 0.22 μm filtered solution of 50mM acetic acid, pH 3.6.

Reconstitution

Centrifuge the vial before opening.

Background

Recombinant Human/Mouse/Rat Mature BMP-4 Protein that in humans is encoded by BMP4 gene. 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 Mature BMP-4 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Ser293-Arg408) of Human Mature BMP-4 (Accession #NP_001193.2) fused with no tag.

Bio-Activity

1. Recombinant Human/Mouse/Rat Mature BMP-4 Protein induce alkaline phosphatase production by ATDC5 mouse chondrogenic cells. The ED_{50} for this effect is 5.24-20.96 ng/mL, corresponding to a specific activity of $4.77 \times 10^4 \sim 1.91 \times 10^5$ units/mg. | 2. Measured by its binding ability in a functional ELISA. Immobilized Human BMP4 Protein (Catalog: RP02512S1) at 5 μg/mL (100 μL/well) can bind Recombinant Human RGMA (Catalog: RP00228) with a linear range of 10-130 ng/mL. | 3. Measured by its ability to induce alkaline phosphatase production by MC3T3-E1 mouse osteoblastic cells. The ED_{50} for this effect is typically 24.38-97.51 ng/mL, corresponding to a specific activity of $1.03 \times 10^4 \sim 4.10 \times 10^4$ units/mg.

Shipping

Lyophilized proteins are shipped at ambient temperature. Liquid proteins are shipped at frozen temperature with dry ice. Upon receipt, store it immediately at the temperature recommended below.

Operational Notes

For your safety and health, please wear a lab coat and disposable gloves for handling.

Storage

Store at -20°C
Avoid repeated freeze/thaw cycles.

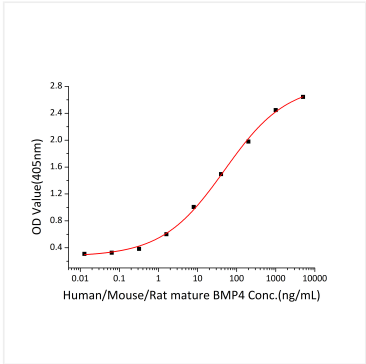
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Contact

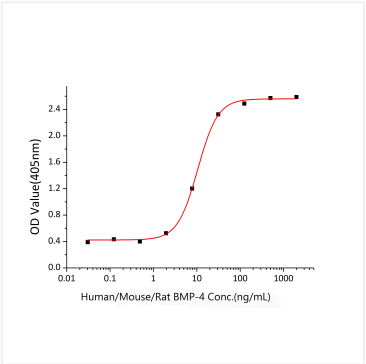


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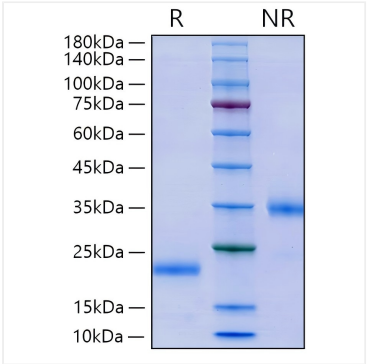
Validation Data



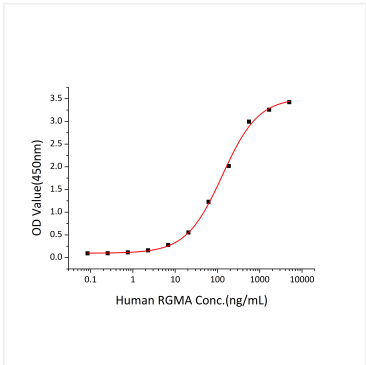
Measured by its ability to induce alkaline phosphatase production by MC3T3-E1 mouse osteoblastic cells. The ED₅₀ for this effect is typically 24.38-97.51 ng/mL, corresponding to a specific activity of 1.03×10⁴~4.10×10⁴ units/mg.



Recombinant Human/Mouse/Rat Mature BMP-4 Protein induce alkaline phosphatase production by ATDC5 mouse chondrogenic cells. The ED₅₀ for this effect is 5.24-20.96 ng/mL, corresponding to a specific activity of 4.77×10⁴~1.91×10⁵ units/mg.



Recombinant Human/Mouse/Rat Mature BMP-4 Protein was determined by SDS-PAGE under reducing (R) and non-reducing (NR) conditions.



Measured by its binding ability in a functional ELISA. Immobilized Human BMP4 Protein (Catalog: RP02512S1) at 5µg/mL (100 µL/well) can bind Recombinant Human RGMA (Catalog:RP00228) with a linear range of 10-130 ng/mL.