

Recombinant Human/Mouse/Rat Mature BMP-4 Protein

Catalog No.: RP02512S1 Recombinant

Sequence Information

Species Gene ID Swiss Prot Human,Mous 652 P12644 e.Rat

Tags

No-Tag

Synonyms

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

Product Information

Source Purification
CHO cells ≥ 95 % as determined by SDS-PAGE.

Calculated MW Observed MW

13.13 kDa 15-25 kDa

Endotoxin

< 0.01 EU/ μg of the protein by LAL method

Formulation

Lyophilized from a 0.22 µm filtered solution of 50mM acetic acid,pH3.6.

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 stablizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Contact

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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

Measured by its ability to 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 $4.77 \times 10^4 \sim 1.91 \times 10^5$ units/mg.

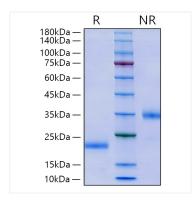
Storage

Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt.

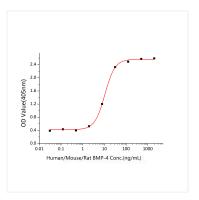
After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.

Avoid repeated freeze/thaw cycles.

Validation Data



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



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 $4.77\times10^4\sim1.91\times10^5$ units/mg.