Recombinant Human/Mouse/Rat Mature BMP-4 Protein

Catalog No.: RP02512S1

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Sequence Information

Species
Human,Mouse, Rat

Gene ID
652

Swiss Prot
P12644

Tags
No-Tag

Synonyms
BMP4, BMP2B, DVR4,Bone morphogenetic protein 4, BMP-4, Bone morphogenetic protein 2B, BMP-2B

Product Information

Source
CHO cells

Purification
≥ 95 % as determined by SDS-PAGE.

Calculated MW
13.13 kDa

Observed MW
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.

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.

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 4.77×10^{4}~1.91×10^{5} units/mg.
2.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.
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 1.03×10^{4}~4.10×10^{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.

Storage
Store at -20℃

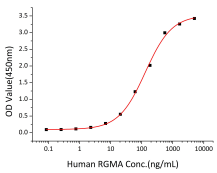
Operational Notes
For your safety and health, please wear a lab coat and disposable gloves for handling.

Contact

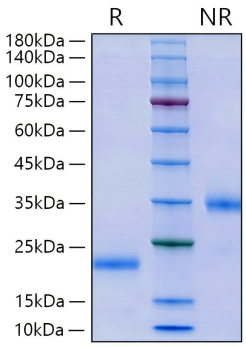
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Please visit http://abclonal.com for a complete listing of recommended products.

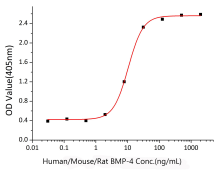
Validation Data



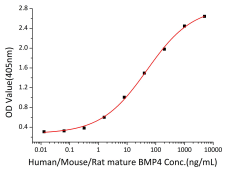
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Recombinant Human/Mouse/Rat Mature BMP-4 Protein was determined by SDS-PAGE under reducing (R) and non-reducing (NR) conditions.



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