

37-1094: Human BMP-5 Recombinant Protein (Fc Tag)(Discontinued)

Reactivity : Human

Alternative Name : none

Description

Source : HEK293 Cells

Bone Morphogenetic Protein 5 (BMP-5) is a member of the structurally and functionally related bone morphogenetic proteins (BMPs) which constitute a novel subfamily of the transforming growth factor beta (TGF-beta) superfamily. In agreement with a possible role in the control of cell death, BMP-5 exhibited a regulated pattern of expression in the interdigital tissue. Transcripts of BMP-5 and BMP-5 protein were abundant within the cytoplasm of the fragmenting apoptotic interdigital cells in a way suggesting that delivery of BMPs into the tissue is potentiated during apoptosis. Gain-of-function experiments demonstrated that BMP-5 has the same effect as other interdigital BMPs inducing apoptosis in the undifferentiated mesoderm and growth in the prechondrogenic mesenchyme. BMP-5 is a member of the 6A subgroup of BMPs, other members of which have been shown to stimulate dendritic growth in central and peripheral neurons. The signaling pathway that mediates the dendrite-promoting activity of BMP-5 may involve binding to BMPRII and activation of Smad-1, and relative levels of BMP antagonists such as noggin and follistatin may modulate BMP-5 signaling. Since BMP-5 is expressed at relatively high levels not only in the developing but also the adult nervous system, these findings suggest the possibility that BMP-5 regulates dendritic morphology not only in the developing, but also the adult nervous system. BMP-5 may play important roles not only in myocardial differentiation, but also in the formation and maintenance of endocardial cushion tissue. Additionally, high expression level of BMP-5 has been detected in certain tumors of mesenchymal origin.

Product Info

Amount : 5 Recombinant Protein (Fc Tag)(Discontinued) / 20 µg

Purification : > 95 % as determined by SDS-PAGE and SEC-HPLC Analysis.

Content : Formulation Lyophilized from sterile PBS, pH 7.4
Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.

Storage condition : Store it under sterile conditions at -20°C to -80°C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

Amino Acid : Gln324-His454

Application Note

Endotoxin : < 1.0 EU per µg of the protein as determined by the LAL method

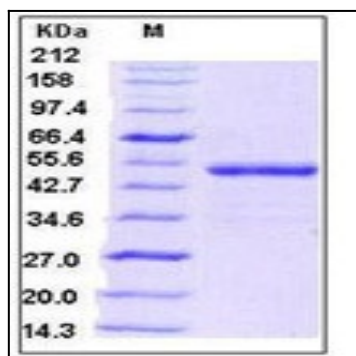


Fig 1: Human BMP-5 Recombinant Protein (Fc Tag)