Recombinant Swine BMP-4 protein(His Tag)

Catalog Number: PKSS000011

Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

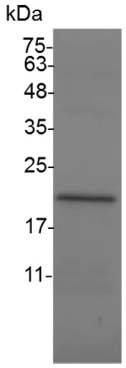
Description

Species	Porcine
Mol_Mass	21.7 kDa
Accession	NP_001094501.1
Bio-activity	Not validated for activity

Properties

Purity	> 98 % as determined by reducing SDS-PAGE.
Endotoxin	< 0.1 EU per μg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 ℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile 20 mM sodium citrate, 0.2 M NaCl, pH 3.5. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 98 % as determined by reducing SDS-PAGE.

Background

Growth factor of the TGF-beta superfamily that plays essential roles in many developmental processes, including neurogenesis, vascular development, angiogenesis and osteogenesis. Acts in concert with PTHLH/PTHRP to stimulate ductal outgrowth during embryonic mammary development and to inhibit hair follicle induction. Initiates the canonical BMP signaling cascade by associating with type I receptor BMPR1A and type II receptor BMPR2. Once all three components are bound together in a complex at the cell surface, BMPR2 phosphorylates and activates BMPR1A. In turn, BMPR1A propagates signal by phosphorylating SMAD1/5/8 that travel to the nucleus and act as activators and repressors of transcription of target genes. Can also signal through non-canonical BMP pathways such as ERK/MAP kinase, PI3K/Akt or SRC cascades. For example, induces SRC phosphorylation which, in turn, activates VEGFR2, leading to an angiogenic response.

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