



Recombinant Equine BMP-2

Catalog Number: GR104018

Background

Bone morphogenetic protein 2 or BMP-2 belongs to the TGF- β superfamily of proteins (1). BMP-2 has been shown to interact with BMPR1A. BMP-2 like other bone morphogenetic proteins (2) plays an important role in the development of bone and cartilage. It is involved in the hedgehog pathway, TGF beta signaling pathway, and in cytokine-cytokine receptor interaction. It is involved also in cardiac cell differentiation and epithelial to mesenchymal transition. BMP-2 and BMP-7 are osteoinductive BMPs: they have been demonstrated to potently induce osteoblast differentiation in a variety of cell types (3).

References

1. Sampath TK, et al. (5 August 1990). *J. Biol. Chem.* 265 (22): 13198
2. Chen D, et al. (December 2004). *Growth Factors* 22 (4): 233
3. Marie PJ, et al. (2002). *Histol. Histopathol.* 17 (3): 877



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Description

Source: Chinese Hamster Ovary cell derived

Gln283 –Arg396

Accession # XP_001493945.1

Structure/Form: Disulfide-linked homodimer

Predicted Molecular Mass: 13 kDa (monomer)

Specifications

SDS-PAGE: 15-16 kDa, reducing conditions

Activity Measured in its ability to induce alkaline phosphatase production by ATDC5 mouse chondrogenic cells. Binnerts ME. et al (2004) Biochem Biophys Res Commun 315:272. The ED50 for this effect is typically 50-150 ng/mL.

Endotoxin Level: <1.0 EU per 1 µg of the protein by the LAL method.

Purity: >97%, by SDS-PAGE under reducing conditions and visualized by silver stain.

Formulation: Lyophilized from a 0.2 µm filtered solution in glycine, sucrose, Tween 20 and glutamic acid with BSA as a carrier protein.

Preparation and Storage

Reconstitution: Reconstitute at 200 ng/mL in sterile PBS.

Shipping: The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage: Use a manual defrost freezer and avoid repeated freeze thaw cycles.

- 6 months from date of receipt, -20 to -70°C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70°C under sterile conditions after reconstitution.

DECLARATION

THIS REAGENT IS FOR IN VITRO LABORATORY TESTING AND RESEARCH USE ONLY. DO NOT USE IT FOR CLINICAL DIAGNOSTICS. DO NOT USE OR INJECT IT IN HUMANS AND ANIMALS.

**FOR LABORATORY RESEARCH USE ONLY
NOT FOR USE IN HUMANS AND ANIMALS**