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## Human BMP-4 Protein

Cat #: PRP1064 Size: 5µg

Size: 5µg/20µg/100µg/1mg

## **Product Information**

|     | Product Name: Human BMP-4 Protein                        |     |                                    |
|-----|--|-----|------------------------------------|
| REF | Catalog Number: PRP1064                                  | LOT | Lot Number: Refer to product label |
|     | Purity: > 95% as determined by SDS-PAGE                  |     |                                    |
| Ĵ.  | Storage: Store at -20°C                                  |     | Preparation method: E.coli         |
|     | Shipping: The product is shipped at ambient temperature. |     |                                    |

**Background:** Bone morphogenic protein-4 (BMP-4) is one of nine structurally related BMPs belonging to the transforming growth factor-beta (TGF-beta) superfamily of secreted proteins. Mature BMP-4 is a dimer that binds to a multimeric transmembrane receptor with serine/threonine kinase activity. BMP-4 has important roles as a signalling molecule in embryonic tissues, including the developing central and peripheral nervous system, musculature and skeleton. BMP-4 as well as its receptors and their signal transduction pathways play a crucial role in the control of the differentiation and proliferation of the different cell types that constitute the anterior pituitary.

**Sequence:** Amino acid sequence derived from Human BMP-4 (Met302-Arg408) (P12644) was expressed with 6×His tag at the N-terminus.

Protein length: The recombinant Human BMP-4 consists of 107 amino acids and predicts a molecular mass of 12.1 kDa.

**Biological Activity**: Measure by its ability to induce alkaline phosphatase production by ATDC5 cells. The ED<sub>50</sub> for this effect is <0.58 ng/mL.

**<u>Endotoxin</u>**: < 0.1 EU per  $\mu$ g of the protein as determined by the LAL method.

Formulation: Lyophilized from sterile 20 mM sodium carbonate, pH 9.0.

**Storage Instructions:** Lyophilized protein product should be stored desiccated below -18°C. Upon reconstitution, the protein should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (5% HSA, 10%FBS or 0.1%BSA). Please prevent freeze-thaw cycles.

Usage notes: Always centrifuge tubes before opening. It is recommended to reconstitute the lyophilized recombinant human



BMP-4 protein to a concentration of 0.1-1 mg/mL in sterile ddH O, and keep at room temperature for at least 20 min to fully dissolve. Please avoid vortex vigorously.

| kDa<br>75<br>60<br>45<br>35<br>25<br>15<br>10 |  | Fig. SDS-PAGE analysis of Human BMP-4 protein. |
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