## **Elabscience**®

## Recombinant Human BMP-2 Protein(Sumo Tag)

## Catalog Number: PDEH100503

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

Description			
Species	Human		
Source	E.coli-derived Human BMP-2 protein Gln283-Arg396, with an N-terminal Sumo		
Calculated MW	25.4 kDa		
Observed MW	31 kDa		
Accession	P12643		
Bio-activity	Not validated for activity		
Properties			
Purity	>90% as determined by reducing SDS-PAGE.		
Endotoxin	< 10 EU/mg 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		
	°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at $<$ -20°C for 3 months.		
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.		
Formulation	Lyophilized from a 0.2 $\mu$ m filtered solution in PBS with 5% Trehalose and 5%		
	Mannitol.		
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of		
	0.5 mg/mL. Concentration is measured by UV-Vis.		

Data

kDa	М	R	
80	-		
60	-		
40	•		
30		-	
20	Η.		

SDS-PAGE analysis of Human BMP-2 proteins, 2 μg/lane of Recombinant Human BMP-2 proteins was resolved with SDS-PAGE under reducing conditions, showing bands at 25.4 KD

## Background

Bone morphogenetic protein-2 (BMP-2) is a member of the transforming growth factor-beta (TGFB) superfamily. BMP2 is synthesized as a 60 kDa precursor that is processed in the secretory pathway to a small 18 kDa monomer, 2 monomers then associate to form the active 30 kDa homodimer, which binds to its receptor. There is also a 40-45 kDa form of BMP2, as an amino-terminal propeptide. BMP2 can induce bone formation and regeneration during early embryonic development. It is involved in the hedgehog pathway, TGF beta signaling pathway, and cytokine-cytokine receptor interaction.

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