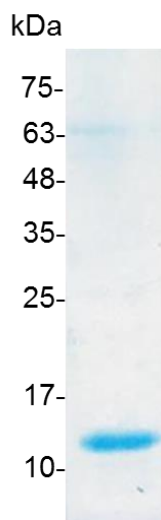


## PRODUCT INFORMATION

**BMP-7 (Bone morphogenetic protein-7), Human**

<b>Catalog number</b>	C01067-5UG / C01067-20UG / C01067-100UG
<b>Package</b>	5 µg / 20 µg / 100 µg
<b>Description</b>	BMP-7 (Bone morphogenetic protein 7) is a bone morphogenetic protein which belongs to the TGF-β superfamily. OP-1 is expressed in the brain, kidneys, and bladder. BMP-7 may be involved in bone homeostasis and plays a key role in the transformation of mesenchymal cells into bone and cartilage. The phosphorylation of SMAD1 and SMAD5 can be induced by BMP-7, which in turn induce transcription of numerous osteogenic genes. BMP-7 treatment can also induce all of the genetic markers of osteoblast differentiation in many cell types. Human recombinant BMP-7 protein can be used to aid in the fusion of vertebral bodies to prevent neurologic trauma. It also functions in the treatment of tibial non-union, frequently in cases where a bone graft has failed. It is found that BMP7 has the potential for treatment of chronic kidney disease.
<b>Source</b>	<i>Escherichia coli</i>
<b>Sequence</b>	MANVAENSSSDQRQACKKHELYVSFRDLGWQDWIIAPEGYAAAYYCEGECAPFLNSYMNATNHAI VQTLVHFINPETV PKPCAPTQLNAISVLYFDDSSNVILKKYRNMVVRACGCH with polyhistidine tag at the C-terminus
<b>Endotoxin level</b>	<0.1 EU per 1 µg of the protein by the LAL method.
<b>Activity</b>	Measure by its ability to induce alkaline phosphatase production by ATDC5 cells. The ED <sub>50</sub> for this effect is <0.65 µg/mL.
<b>Purity</b>	>98% as determined by SDS-PAGE. Ni-NTA chromatography
<b>Formulation</b>	The protein was lyophilized from a solution containing 20 mM sodium citrate, 0.2 M NaCl, pH 3.5.
<b>Reconstitution</b>	It is recommended to reconstitute the lyophilized protein in sterile H <sub>2</sub> O to a concentration not less than 100 µg/mL and incubate the stock solution for at least 20 min to ensure sufficient re-dissolved.
<b>Storage</b>	Lyophilized protein should be stored at -20°C. Upon reconstitution, protein aliquots should be stored at -20°C or -80°C.
<b>Note</b>	Please use within one month after protein reconstitution.



SDS-PAGE analysis of recombinant human BMP-7

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