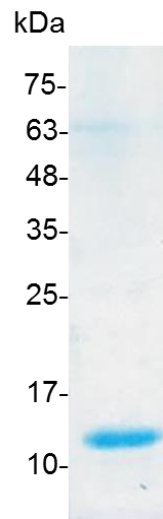


BMP-7 (Bone morphogenetic protein-7), Human

v. 231001

Catalog number	C01067-5UG / C01067-20UG / C01067-100UG
Package	5 µg / 20 µg / 100 µg
Description	<p>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.</p>
Source	<i>Escherichia coli</i>
Sequence	<p>MANVAENSSSDQRQACKKHELYVSFRDLGWQDWIIAPEGYAAYYCEGECAFP LNSYMNATNHAI VQTLVHFINPETV PKCCAPTQLNAISVLYFDDSSNVILKKYR NMVVRACGCH with polyhistidine tag at the C-terminus</p>
Endotoxin level	<0.1 EU per 1 µg of the protein by the LAL method.
Activity	<p>Measure by its ability to induce alkaline phosphatase production by ATDC5 cells. The ED₅₀ for this effect is <0.65 µg/mL.</p>
Purity	>98% as determined by SDS-PAGE.
Form	Lyophilized
Storage Buffer	Lyophilized from a 0.2 µm filtered solution containing 20 mM sodium citrate and 0.2 M NaCl, pH 3.5.
Reconstitution	<p>It is recommended to reconstitute the lyophilized protein in 4 mM HCl to a concentration not less than 200 µg/mL and incubate the stock solution for at least 20 min to ensure sufficient re-dissolved.</p>
Stability & Storage	<p>This product is stable after storage at:</p> <ul style="list-style-type: none"> -20°C for 12 months in lyophilized state from date of receipt. -20°C or -80°C for 1 month under sterile conditions after reconstitution. <p>Avoid repeated freeze/thaw cycles.</p>



SDS-PAGE analysis of recombinant human BMP-7

For research use only.