

## Product datasheet for **TP728154M**

### Recombinant BMP-14 (Bone morphogenetic protein-14), Human

#### Product data:

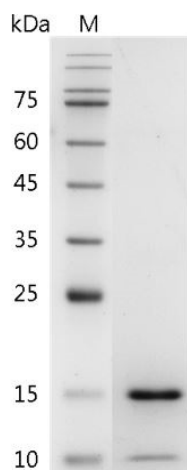
<b>Product Type:</b>	Recombinant Proteins
<b>Description:</b>	Recombinant BMP-14 (Bone morphogenetic protein-14), Human
<b>Species:</b>	Human
<b>Expression Host:</b>	E. coli
<b>Expression cDNA Clone or AA Sequence:</b>	MAPLATRQGKRPSKNLKARCSRKALHVNFKDMGWDDWIIAPLEYEAFHCEGLCEFPLRSHLEPTNHAVIQ TLMNSMDPESTPPTCCVPTRLSPISILFIDSANNVVKQYEDMVVESCGR with polyhistidine tag at the C-terminus.
<b>Tag:</b>	His Tag (C-term)
<b>Predicted MW:</b>	The protein has a calculated MW of 14.52 kDa. The protein migrates as 18 kDa under reducing condition (SDS-PAGE analysis).
<b>Purity:</b>	>98% as determined by SDS-PAGE.
<b>Buffer:</b>	The protein was lyophilized from a 0.2 µm filtered solution containing 20 mM sodium citrate, 0.2 M NaCl, pH 3.5.
<b>Bioactivity:</b>	Measure by its ability to induce alkaline phosphatase production by ATDC5 cells. The ED <sub>50</sub> for this effect is <14 ng/mL.
<b>Endotoxin:</b>	<0.1 EU per 1 µg of the protein by the LAL method.
<b>Reconstitution Method:</b>	Centrifuge at 3000 rpm for 5 mins before opening. 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 at room temperature for at least 20 mins to ensure sufficient re-dissolved. Do Not Vortex! Vigorous shaking may impair the biological activity of the protein.
<b>Applications:</b>	Cell culture
<b>Storage:</b>	Lyophilized protein should be stored at -20°C for 1 year. Upon reconstitution, store at 2°C to 8°C for up to 1 week. Further dilute in a buffer containing a carrier protein or stabilizer (e.g. 0.1% BSA, 10%FBS, 5%HSA or 5% trehalose solution), protein aliquots should be stored at -20°C or -80°C for 3-6 months. Avoid repeated freeze/thaw cycles.
<b>UniProt ID:</b>	<a href="#">P43026</a>
<b>Synonyms:</b>	Cartilage-Derived Morphogenetic Protein-1,Growth/Differentiation Factor-5,GDF-5, CDMP-1



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**Summary:**

Bone Morphogenetic Protein-14 (BMP-14), known as Growth differentiation factor 5 (GDF5), is an extracellular multifunctional cytokine that is also a member of the TGF $\beta$  family. BMP-14 can bind with the TGF $\beta$  receptor and trigger SMAD protein signal transduction. BMP-14 plays a role in skeletal and joint development and increases the survival of neurons that respond to the neurotransmitter dopamine.

**Product images:**

SDS- PAGE analysis of recombinant human BMP-14