

# Human BMP-14, His Tag, E. coli

Catalog Number LDG112PHE

**Package** 5 μg / 20 μg / 100 μg / Customized package

For full product information, images and publications, please visit our website.



## **Specifications**

**Species of Origin** 

Human

**Affinity Tag** 

His Tag (C-term)

**Purity** 

>98% as determined by SDS-PAGE analysis.

**Activity** 

Measure by its ability to induce alkaline phosphatase production by ATDC5 cells. The ED $_{50}$  for this effect is <14 ng/mL.

Form

Lyophilized

**Expression System** 

Escherichia coli

**Storage Buffer** 

Lyophilized from a 0.2  $\mu m$  filtered solution containing 20 mM sodium citrate and 0.2 M NaCl, pH 4.5.

Molecular weight

The protein has a calculated MW of 14.52 kDa. The protein migrates as 18 kDa under reducing condition (SDS-PAGE analysis).

**Endotoxin Level** 

<0.1 EU per 1  $\mu$ g of the protein by the LAL method.

Background



#### **Background**

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.

#### **Synonyms**

Bone morphogenetic protein 14, BMP-14, Cartilage-derived morphogenetic protein 1, CDMP-1, Lipopolysaccharide-associated protein 4, LAP-4, LPS-associated protein 4, Radotermin, Growth/differentiation factor 5

### **Uniprot ID**

#P43026

### **Sequence Note**

Ala382-Arg501

### Instruction

#### Reconstitution

It is recommended to reconstitute the lyophilized protein in 4 mM HCl to a concentration not less than 200  $\mu$ g/mL and incubate the stock solution for at least 20 min to ensure sufficient redissolved.

### **Shipping**

The product is shipped with polar packs. Upon receipt, store it immediately at -20°C or lower for long term storage.

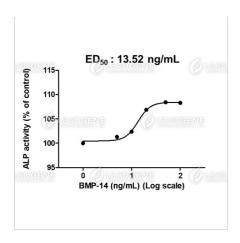
#### **Stability & Storage**

This product is stable after storage at:

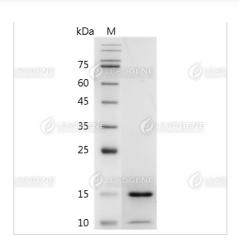
- -20°C for 12 months in lyophilized state from date of receipt.
- -20°C or -80°C for 1 month under sterile conditions after reconstitution.

Avoid repeated freeze/thaw cycles.

### **Image**



Human BMP-14, His Tag, E. coli (LDG112PHE) induced alkaline phosphatase production by ATDC5 cells, with the ED50 at 13.52 ng/mL.



SDS-PAGE analysis of recombinant human BMP-14.

**Disclaimer:** For Research Use or Further Manufacturing Only.