

# Human recombinant BMP-14 (Bone morphogenetic protein-14) protein, AF

Catalog Number: PROTP43026-4

## Overview

Product Name	Human recombinant BMP-14 (Bone morphogenetic protein-14) protein, AF
Description	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 TGFbeta family. BMP-14 can bind with the TGFbeta 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.
Size	5ug,20ug,100ug
Tag	His Tag (C-term)
Form	Lyophilized
Source	Escherichia coli
Formulation	The protein was lyophilized from a 0.2 um filtered solution containing 20 mM sodium citrate, 0.2 M NaCl, pH 3.5. If you have any concerns or special requirements, please confirm with us.

## Storage

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.

## Purity

>98% as determined by SDS-PAGE.

## Molecular weight

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

## Activity

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

## Endotoxin

<0.1 EU per 1 ug of the protein by the LAL method.

### Amino Acid Sequence

MAPLATRQGKRPSKLNKARCSRKALHVNFKDMGWDDWIIAPLEYEAFHCEGLCEFPLRSHLEPTNHAVIQTLMNSMDPESTPPTCCVPTRLSPISILFID  
SANNVYKQYEDMVVESCGR with polyhistidine tag at the C-terminus.

### Reconstitution

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 ug/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.

## Usage

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