

## Recombinant Human BMP-14/GDF-5

**CATALOG NO:** 4580-10 10 µg  
 4580-50 50 µg  
 4580-1000 1 mg

**SOURCE:** *E. coli*

**PURITY:** >98% by SDS-PAGE

**ENDOTOXIN LEVEL:** Endotoxin level is <0.1 ng per µg of BMP-14/GDF-5.

**MOL. WEIGHT:** 13.6 kDa

**FORM:** Lyophilized without additives

### RECONSTITUTION:

Centrifuge the vial prior to opening. Reconstitute to a concentration of 0.1-1.0 mg/ml in water containing BSA (50 µg BSA per 1 µg of protein). This solution can then be diluted into other aqueous buffers and stored at 4° C for 1 week or -20° C for future use.

### STORAGE CONDITIONS:

The lyophilized protein is best-stored desiccated below 0° C. Reconstituted BMP-14/GDF-5 should be stored in working aliquots at -20° C.

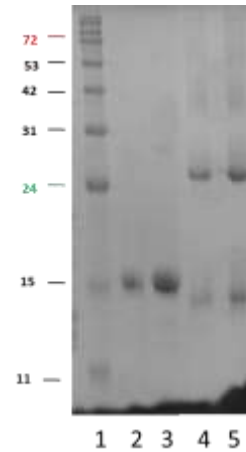
### DESCRIPTION:

BMPs (bone morphogenetic proteins) belong to the TGF-β superfamily of structurally related signaling proteins. As implied by their name, BMPs promote and regulate bone development, growth, remodeling and repair, in both prenatal development and postnatal growth of eye, heart, kidney, skin, and other tissues. In addition to its osteogenic activity, BMP-14/GDF-5 is a principal inhibitor of cartilage development and is predominantly expressed in long bone during human embryonic development. Recombinant human BMP-14/GDF-5 is a 27 kDa homodimeric protein consisting of two 120 amino acid polypeptide chains.

### BIOLOGICAL ACTIVITY:

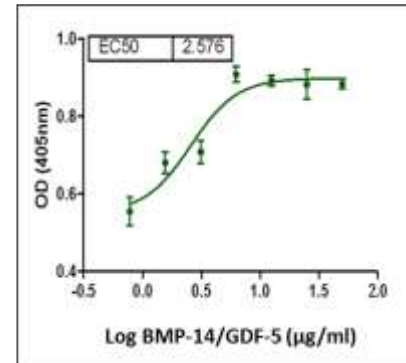
The ED<sub>50</sub> as determined by its ability to induce alkaline phosphatase production by ATDC-5 chondrogenic cells is 1-5 µg/ml.

**FOR RESEARCH USE ONLY! Not to be used on humans.**



### SDS-PAGE (17%) analysis of rh BMP-14/GDF-5:

Lane 1: protein marker  
 Lane 2: 1 µg BMP-14/GDF-5 in reduced gel (with DTT)  
 Lane 3: 2 µg BMP-14/GDF-5 in reduced gel (with DTT),  
 Lane 4: 1 µg BMP-14/GDF-5 in non-reduced gel (without DTT),  
 Lane 5: 2 µg BMP-14/GDF-5 in non-reduced gel (without DTT)



The ED<sub>50</sub> as determined by its ability to induce alkaline phosphatase production by ATDC-5 chondrogenic cells is 1-5 µg/ml.

### RELATED PRODUCTS:

- BMP-11, human recombinant (Cat. No. 4576-10)
- BMP-11/GDF-11, human recombinant (Cat. No. 7155-10)
- BMP-12/GDF-7, human recombinant (Cat. No. 4572-100)
- BMP-3b/GDF-10, human recombinant (Cat. No. 7303-100)
- BMP-5, human recombinant (Cat. No. 4574-10)
- BMP-6, human recombinant (Cat. No. 4911-10)
- BMP-7, human recombinant (Cat. No. 4579-10)
- BMP-9/GDF-2, human recombinant (Cat. No. 7154-10)
- BMP8B, human recombinant (Cat. No. 7304-100)