## **PRODUCT INFORMATION**

**Expression system** E.coli

**Domain** 376-495aa

**UniProt No.** P43027

NCBI Accession No. NP\_032135

### **Alternative Names**

Growth differentiation factor 5, CDMP-1, Cartilage-derived morphogenetic protein 1, BRP, BP, Bone morphogenetic protein 14, BMP-14

## **PRODUCT SPECIFICATION**

## **Molecular Weight**

16 kDa (143aa)

# Concentration

0.5mg/ml (determined by Bradford assay)

#### Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 10% glycerol

**Purity** > 90% by SDS-PAGE

**Tag** His-Tag

Application SDS-PAGE, Denatured

### **Storage Condition**

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## BACKGROUND

### Description

Growth/differentiation factor 5 precursor, also known as GDF5, is a member of the TGF superfamily. GDF5 has been shown to induce activation of plasminogen activator, thereby inducing angiogenesis. It is predominantly expressed in long bones during fetal embryonic development and is involved in bone formation. GDF5mutations have been identified in mice with the mutation brachypodism (bp), a mutation which affects the length and number of bones in limbs. Recombinant mouse GDF5 protein, fused to His-tag at N-terminus, was expressed in



#### E. coli.

#### **Amino acid Sequence**

MGSSHHHHHH SSGLVPRGSH MGSAPLANRQ GKRPSKNLKA RCSRKALHVN FKDMGWDDWI IAPLEYEAFH CEGLCEFPLR SHLEPTNHAV IQTLMNSMDP ESTPPTCCVP TRLSPISILF IDSANNVVYK QYEDMVVESC GCR

#### **General References**

Katayama R., et al. (2004) Rheumatology. 43: 980-985. Kwong F N., et al. (2008) J Orthop Res. 27: 752-757.

### DATA



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.

15% SDS-PAGE (3ug)