Cynomolgus TGF-beta 1 / TGFB1 Protein (His Tag)

Catalog Number: **90294-C08H**

Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

TGF-beta 1, TGFB1

Protein Construction:

A DNA sequence encoding the cynomolgus TGFB1 (Met1-Ser390) was expressed with a polyhistidine tag at the C-terminus.

Source: Cynomolgus

Expression Host: Human Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE.

Bio-Activity

1. Measured by its binding ability in a functional ELISA.
2. Immobilized Cynomolgus TGFB1-His at 10 μg/mL (100 μL/well) can bind Cynomolgus TGFBR2-Fc (Cat:90063-C02H). The EC50 of Cynomolgus TGFBR2-Fc (Cat:90063-C02H) is 28-56 ng/mL.

Endotoxin:

< 1.0 EU per μg protein as determined by the LAL method.

Stability:

Samples are stable for up to twelve months from date of receipt at -70 ℃

Predicted N terminal: Leu 30

Molecular Mass:

The recombinant cynomolgus TGFB1 consists 372 amino acids and predicts a molecular mass of 42.7 kDa.

Formulation:

Lyophilized from sterile PBS, pH 7.4.

Normally 5 % - 8 % trehalose and mannitol are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

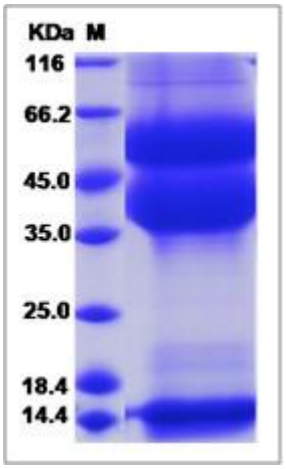
Usage Guide

Storage:

Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

SDS-PAGE:



Reconstitution:

Detailed reconstitution instructions are sent along with the products.

Protein Description

Transforming growth factor beta 1 (TGFβ1)is a member of thelarge transforming growth factor beta superfamilyofcytokines, and serves as a multifunctional molecule performing actions in many cellular functions, including the control ofcell growth,cell proliferation,cell differentiation and apoptosis. TGFβ1 was first synthesized as a 390 amino acid precusor. The secreted proprotein contains 360 aa, and is cleaved into mature TGFβ1 (112 aa) and latency-associated peptide (LAP) (248 aa), which remains non-covalently linked to mature TGFβ1 rendering it inactive. TGFβ1 is synthesized by many cells, and regulates many other growth factors both in positive and negative manner. It has been shown that TGFβ1 plays an important role in controlling the immune system and shows different activities on different types of cell, or cells at different developmental stages. It is highly expressed in bone and as a potent stimulator of osteoblastic bone formation. TGFβ1 is able to cause chemotaxis, proliferation and differentiation in committed osteoblasts. TGFβ1 is also identified as a disease marker and a therapeutical target for cardiovascular disease.

References

1. Assoian R, et al., 1983, J Biol Chem.258 (11): 7155-60.
2. Letterio J, et al., 1998,Annu Rev Immunol.16: 137-61.
3. Lebman D, et al., 1999, Microbes Infect.1 (15): 1297-304.
4. Ghadami M, et al., 2000, Am. J. Hum. Genet.66 (1): 143-7.
5. Vaughn SP, et al., 2000, Genomics.66 (1): 119-21.
6. Sanchez-Capelo, A.,2005, Cytokine Growth Factor Rev.16 (1): 15-34.
7. Redondo,S.et al., 2007, Cytokine Growth Factor Rev.18 (3-4): 279-86.