

Background

TGF-β2 (Transforming growth factor-beta 2) is a secreted protein known as a cytokine that performs many cellular functions and has a vital role during embryonic development (alternative names: Glioblastoma-derived T-cell suppressor factor, G-TSF, BSC-1 cell growth inhibitor, Polyergin, Cetermin). It is an extracellular glycosylated protein. It is known to suppress the effects of interleukin dependent T-cell tumors.

TGFB1, TGFB2, and TGFB3 all function through the same receptor signaling systems. They are members of the large TGFβ superfamily. TGFβ proteins are highly pleiotropic cytokines that regulate processes such as immune function, proliferation and epithelialmesenchymal transition (1-3). TGFβ activation from latency is controlled both spatially and temporally, by multiple pathways that include actions of proteases such as plasmin and MMP9, and/or by thrombospondin 1 or selected integrins (4). The active form of TGFβ2 is a disulfidelinked homodimer which is generated by activation of the latent TGFβ2 complex. TGFβs are multifunctional cytokines that activate or repress multiple genes in a wide variety of cell types. Depending on the cell context, TGFβ can control many cellular processes including growth, morphogenesis, and apoptosis.

References

1. Dunker, N. and K. Krieglstein (2000) *Eur. J. Biochem.* 267:6982.
2. Wahl, S.M. (2006) *Immunol. Rev.* 213:213.
3. Chang, H. et al. (2002) *Endocr. Rev.* 23:787.
4. Oklu, R. and R. Hesketh (2000) *Biochem. J.* 352:601.

Related products

1. GR238016 50 ml Reagent Reservoir, 100/case, 5 packs/case (pack of 20)
2. GR238004 Tissue Culture 96-well Microplate, individually packed, Case of 50
3. GR238019 1.5 ml Microcentrifuge tube with screw cap and free-standing, pack of 500
4. GR238007 125 ml leak-resistant HDPE bottle, colorless, pack of 24
5. GR238002 Microplate 12x8-Well Strip High Binding, Case of 50
6. GR238003 Microplate 12x8-Well Strip Medium Binding, Case of 50
7. GR238032 42592 Costar Stripwell Microplate 1 x 8 Flat Bottom, High Binding, Case of 100
8. GR238001 468667 Thermo Microplate 12x8-Well Strip Nunc Maxisorp F8, Case of 60
9. GR238031 96-well microplate sealer plastic, pack of 100



Recombinant Bovine TGF- β 2

Catalog Number: GR104065

Description

Source: *E coli*-derived

Compositions: Ala303 –Ser414

Accession # NP_001106723.1

N-terminal Sequence Analysis: Ala303

Predicted Molecular Mass: 12.7 kDa (monomer)

Specifications

Activity Measured by its ability to inhibit the IL-4-dependent proliferation of HT-2 mouse T cells. Tsang, M et al. (1995) 7:389. The ED50 for this effect is typically 25-250 pg/mL.

Endotoxin Level: <1.0 EU per 1 μ g of the protein by the LAL method.

Purity: >96%, by SDS-PAGE under reducing conditions and visualized by silver stain.

Formulation: Lyophilized from a 0.2 μ m filtered solution in Acetonitrile and TFA with 50 μ g BSA per 1 μ g as a carrier protein.

Preparation and Storage

Reconstitution: Reconstitute at 50-100 μ g/mL in sterile 4 mM HCl.

Shipping The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage: Use a manual defrost freezer and avoid repeated freeze thaw cycles.

- 6 months from date of receipt, -20 to -70°C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70°C under sterile conditions after reconstitution.

DECLARATION

THIS REAGENT IS FOR IN VITRO LABORATORY TESTING AND RESEARCH USE ONLY. DO NOT USE IT FOR CLINICAL DIAGNOSTICS. DO NOT USE OR INJECT IT IN HUMANS AND ANIMALS.

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NOT FOR USE IN HUMANS AND ANIMALS**