Recombinant Human TGF-β1

Cat. #: STB1-010

Product Specifications

- Expression of Human Proteins in Human Cells
- Extremely Low Endotoxin Level
- High Purity
- Animal Free and Xeno Free
- Tag Free

Protein Description

Transforming growth factor beta 1(TGF- β1) is one of three closely related mammalian members of the large TGF-β superfamily, TGF-β1, β2, and β3, signal through the same receptor and elicit similar biological responses. TGF-β1 is the most abundant isoform secreted by almost every cell type. TGF-β1 is a multifunctional cytokine that controls proliferation, differentiation and other functions in many cell types. Many cells synthesize TGF-β1 and have specific receptors for it. TGF-β1 positively and negatively regulates many other growth factors. TGF-β1 plays an important role in bone remodeling as it is a potent stimulator of osteoblastic bone formation, causing chemotaxis, proliferation and differentiation in committed osteoblasts.

References

Derynck R, et al. (1985) Nature 316, 701-705.

Wah SM (2006) Immunol. Rev. 213, 213.

Tsang M, et al. (1995) Cytokine 7, 389.

Source: Derived from human cells

Size: 10 µg

Shipping: Ambient temperature

Structure: Non-glycosylated homodimer

Purity: >95% by SDS-PAGE

Endotoxin Level: <0.5 EU/µg

Molecular Weight: 25 kDa

Formulation: Lyophilized from a 0.2 µm filtered solution in PBS without carrier protein

Activity Assay

Activity was measured by its ability to inhibit the IL-4 induced proliferation in mouse HT-2 cells (BALB/c spleen activated by sheep erythrocytes in the presence of IL-2).

Reconstitution

Briefly centrifuge the vial before opening. It is recommended to reconstitute the protein in sterile 4 mM HCl containing at least 0.1% human or bovine serum albumin.

Stability and Storage

Use a manual defrost freezer and avoid repeated freeze-thaw cycles. In general: 12 months from date of receipt, -20 to -80° C as supplied. 1 month, 2 to 8° C under sterile conditions after reconstitution. 3 months, -20 to -80° C under sterile conditions after reconstitution.

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