Human TGF-beta 3 (Carrier-Free) Recombinant Protein, eBioscience™

Product Details	
Size	100 µg
Species	Human
Amino acid sequence	Human TGF-beta 3, amino acids Ala301-Ser412 (Accession # NP_003230.1)
Molecular weight	25 kDa
Class	Recombinant
Type	Protein
Purity	>80% by SDS-PAGE and RP-HPLC.
Endotoxin concentration	<0.1 ng/µg
Activity	ED50 0.05 ng/mL; as measured by the inhibition of IL-4 induced proliferation of mouse HT-2 cells. This corresponds to a specific activity of greater than 2x10e7 Units/mg.
Conjugate	Unconjugated
Form	Lyophilized
Storage conditions	-20°C

Applications	Tested Dilution	Publications
Neutralization (Neu)	Assay-Dependent	-
Functional Assay (FN)	Assay-Dependent	-
Control (Ctrl)	Assay-Dependent	-

Product Specific Information

Description: Transforming growth factor beta 3 (TGF beta 3) is the third member of the transforming growth factor family of cytokines, which also includes TGF beta 1 and beta 2. These cytokines are secreted in precursor form consisting of a bioactive C-terminal domain attached to an N-terminal domain known as latency associated protein (LAP). Cleavage of LAP results in the mature protein, which functions as a disulfide-linked homodimer. As with all members of the family, TGF beta 3 is highly conserved across species, with mouse and human TGF beta 3 demonstrating 100% sequence homology and cross-species activity.

The members of this family can be expressed by most cell types and exert pleiotropic effects, which include the suppression of B- and T-cell effector activity, mediation of tissue healing, and suppression of tumor proliferation. The promotion of CD4+CD25+ T-cell expansion is a newly discovered function of the TGF beta cytokines, and indicates an important role in the protection against autoimmunity.

Applications Reported: Recombinant human TGF beta 3 is biologically active and can inhibit IL-4-induced proliferation of mouse HT-2 cells.

Applications Tested: The ED50 of this protein, as measured by inhibition of IL-4-induced proliferation of mouse HT-2 cells, is less than or equal to 0.05 ng/mL, which corresponds to a specific activity of greater than 2 x 10^7 Units/mg.

Source: E. coli (amino acids Ala301-Ser412; accession # NP_003230.1).

Bioactivity: The ED50 of this protein, as measured by inhibition of IL-4-induced proliferation of mouse HT-2 cells, is less than or equal to 0.05 ng/mL, which corresponds to a specific activity of greater than 2 x 10e7 Units/mg.

Endotoxin: Less than 0.1 ng/ug cytokine as determined by the LAL assay. Purity: >98% as determined by SDS-PAGE and HPLC.

Molecular Weight: 25.0 kDa.

Storage and handling: For best recovery, quick spin vial prior to opening. Reconstitute in 5-10 mM citric acid to a concentration of 0.1-1.0 mg/mL. Do not vortex. Use in sterile environment. Store lyophilized protein at less than or equal to -20°C. Reconstituted protein solution can be stored with carrier-protein (e.g., 0.1% BSA) at less than or equal to -20°C.

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