

# Mouse TGF beta 1 Carrier-Free Recombinant Protein, eBioscience™

## Product Details

Size	500 µg
Species	Mouse
Class	Recombinant
Type	Protein
Conjugate	Unconjugated
Form	Liquid
Concentration	0.5 mg/mL
Storage conditions	-80°C

## Applications

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

## Product Specific Information

**Description:** Mouse TGF beta 1 (Transforming Growth Factor beta 1) is a member of a superfamily of homologous, disulfide-linked, homodimeric proteins that regulate the proliferation and differentiation of normal and transformed cells. Human TGF beta 1 is a 25 kDa protein with each subunit containing 112 aa residues. TGF beta 1 is secreted from the many cell types in a complex with LAP (Latency Associated Peptide) and also with LTBP (latent TGF beta binding protein). Disassociation is thought to happen in the extracellular matrix via proteases and/or integrins. Regulatory T cells are a recently identified source of TGF beta 1 thought to be a key player in their suppressive functions. TGF beta 1 binds through TGF beta receptors (of which there is a large family). The protein is highly conserved across all mammalian species.

**Applications Reported:** Recombinant mouse TGF-β1 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 in HT-2 cells, is less than or equal to 40 pg/mL. This corresponds to a specific activity of greater than or equal to 2.5 x 10e7 Units/mg.

**Source:** TGFβ1 was expressed in CHO cells. Mature TGFβ1 (ala279-ser390; accession #BC001180) was purified from the conditioned media.

**Bioactivity:** The ED50 of this protein, as measured by inhibition of IL-4 induced proliferation in HT-2 cells, is less than or equal to 40 pg/mL. This corresponds to a specific activity of greater than or equal to 2.5 x 10e7 units/mg.

**Endotoxin:** Less than 0.01 ng/ug cytokine as determined by the LAL assay. Purity: >95% as determined by SDS-PAGE.

**Molecular Weight:** Mature TGFβ1 polypeptide has a predicted molecular mass of 12,794. On reducing SDS-PAGE the protein migrates as a 13 kDa polypeptide and on non-reducing SDS page the cystine-linked homodimer migrates as a 25 kDa protein.

**Storage and handling:** For best recovery, quick-spin vial prior to opening. Use in a sterile environment.

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