

## Human TGF beta 1 Recombinant Protein Carrier-Free

**Catalog Number:** 34-8348

**Also Known As:** Transforming Growth Factor beta 1, TGFbeta1, TGF-b1

**RUO: For Research Use Only. Not for use in diagnostic procedures.**

### Product Information

**Contents:** Human TGF beta 1 Recombinant Protein Carrier-Free

**REF** **Catalog Number:** 34-8348

**Handling Conditions:** For best recovery, quick-spin vial prior to opening. Use in sterile environment.

**Source:** Human TGF beta1 was expressed in CHO cells. Mature TGF beta1 ala279 - ser390; accession #BC001180 was purified from the conditioned media.

**Molecular Mass:** Mature TGFb1 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.

**Purity:** > 98%, as determined by SDS-PAGE

**Endotoxin Level:** Less than 0.01 ng/ug cytokine as determined by the LAL assay.

**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.

**Formulation:** Sterile liquid; 0.1 M glycine, pH 3.0. 0.22 um filtered.

 **Temperature Limitation:** Store at less than or equal to -70°C.

 **Batch Code:** Refer to Vial

 **Use By:** Refer to Vial

### Description

Human 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.

### Applications Reported

Recombinant human TGF-β1 is biologically active and can inhibit IL-4 induced proliferation of mouse HT-2 cells. Recombinant human TGF-β1 is useful as an ELISA standard.

### 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.

### References

Tan C, Gery I. The unique features of Th9 cells and their products. Crit Rev Immunol. 2012;32(1):1-10.

Bommireddy R, Doetschman T. TGFbeta1 and Treg cells: alliance for tolerance. Trends Mol Med. 2007 Nov;13(11):492-501

Frolik CA, Dart LL, Meyers CA, Smith DM, Sporn MB. Purification and initial characterization of a type beta transforming growth factor from human placenta. Proc Natl Acad Sci U S A. 1983 Jun;80(12):3676-80.

### Related Products

34-8069 Human IL-6 Recombinant Protein Carrier-Free

51-7178 Anti-Human IL-17A Alexa Fluor® 647 (Discontinued. Refer to Cat. No. 50-7178) (eBio64CAP17)

88-7344 Human/Mouse TGF beta1 ELISA Ready-SET-Go!® (To Be Discontinued. Refer to 2nd Generation RSG Cat. No. 88-8350)

88-7449 Human/ Mouse TGFb1 ELISA Ready-SET-Go! Kit (See replacement item 88-8350)

88-7876 Human IL-17A ELISPOT Ready-SET-Go!®

88-7976 Human IL-17A (Interleukin-17A, IL17A) ELISA Ready-SET-Go! Kit (See replacement item 88-7176)

88-8998 Human Regulatory T Cell Staining Kit #2 (PCH101)

