



# Recombinant Protein Technical Manual

**Recombinant Human TGFB1/TGF-beta 1 Protein  
(Active)**  
RPES1385

## Product Data:

**Product SKU:** RPES1385

**Size:** 10µg

**Species:** Human

**Expression host:** Human Cells

**Uniprot:** P01137

## Protein Information:

**Molecular Mass:** 12.8 kDa

**AP Molecular Mass:** 13 kDa

### Tag:

**Bio-activity:** Measured by its ability to inhibit the IL-4-dependent proliferation of TF cells. The ED50 for this effect is 4-40 pg/ml.

**Purity:** > 95 % as determined by reducing SDS-PAGE.

**Endotoxin:** < 1.0 EU per µg as determined by the LAL method.

**Storage:** Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from a 0.2 µm filtered solution of 50mM Glycine-HCl, 150mM NaCl, pH2.5.

**Reconstitution:** Please refer to the printed manual for detailed information.

### Application:

**Synonyms:** Transforming Growth Factor Beta; TGF-Beta; Latency-Associated Peptide; LAP; TGFB1; TGFB;CED;DPD1;TGF-beta 1

## Immunogen Information:

**Sequence:** Ala279-Ser390

## Background:

Transforming Growth Factor  $\beta$  (TGF $\beta$ ) is a secreted protein which belongs to the TGF- $\beta$  family. TGF $\beta$  is abundantly expressed in bone, articular cartilage and chondrocytes and is increased in osteoarthritis (OA). TGF $\beta$  performs many cellular functions, including the control of cell growth, cell proliferation, cell differentiation and apoptosis. The precursor is cleaved into a latency-associated peptide (LAP) and a mature TGF $\beta$  peptide. TGF $\beta$  may also form heterodimers with other TGF $\beta$  family members. It has been found that TGF $\beta$  is frequently upregulated in tumor cells. Mutations in this gene results in Camurati-Engelmann disease.