

# Recombinant Protein Technical Manual Recombinant Human TGFB1/TGF-beta 1 Protein (His Tag) RPES4241

### **Product Data:**

**Product SKU:** RPES4241 **Size:** 10μg

Species: Human Cells

**Uniprot:** P01137

### **Protein Information:**

Molecular Mass: 41.3&12.8 kDa

AP Molecular Mass: 38-55 kDa

Tag: N-His

**Bio-activity:** 

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

**Endotoxin:**  $< 1.0 \text{ EU per } \mu\text{g}$  as determined by the LAL method.

**Storage:** Lyophilized protein should be stored at < -20°C, though stable at room

temperature for 3 weeks. Reconstituted protein solution can be stored at  $4-7^{\circ}$ 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, 50mM NaCl, pH4.0.

**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:** Leu30-Ser390(Cys33Ser)

## **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.