



# Recombinant Protein Technical Manual

## Recombinant Human TGFB3 Protein (Active)

RPES1241

### Product Data:

**Product SKU:** RPES1241

**Size:** 10 $\mu$ g

**Species:** Human

**Expression host:** Human Cells

**Uniprot:** P10600

### Protein Information:

**Molecular Mass:** 12.7 kDa

**AP Molecular Mass:** 14 kDa

#### Tag:

**Bio-activity:** Measured by its ability to inhibit the IL-4-dependent proliferation of TF mouse T cells. The ED50 for this effect is 10-80 pg/ml.

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

**Endotoxin:** < 1.0 EU per  $\mu$ g 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  $\mu$ m filtered solution of 4 mM HCl.

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

#### Application:

**Synonyms:** Transforming growth factor beta-3;TGFB3;TGF-beta-3;Latency-associated peptide;LAP

## Immunogen Information:

**Sequence:** Ala301-Ser412(Tyr340Phe)

## Background:

Transforming growth factor beta 3(TGFB3) is a member of a TGF- $\beta$  superfamily which is defined by their structural and functional similarities. TGFB3 is secreted as a complex with LAP. This latent form of TGFB3 becomes active upon cleavage by plasmin, matrix metalloproteases, thrombospondin, and a subset of integrins. It binds with high affinity to TGF- $\beta$  RII, a type II serine/threonine kinase receptor. TGFB3 is involved in cell differentiation, embryogenesis and development. It is believed to regulate molecules involved in cell adhesion and extracellular matrix (ECM) formation during the process of palate development. Without TGF- $\beta$ 3, mammals develop a deformity known as a cleft palate.