# Recombinant Human TGF-β3

Cat. # and size: PTGFB3-10 10 μg

> PTGFB3-100  $100 \mu g$ PTGFB3-1000 1000 µg

# **Product Specifications**

• Expression of Human Proteins in Human Cells

• Extreme low Endotoxin

High Purity

• Animal Free and Xeno Free

Tag Free

Source: Human cells derived

Structure: Non-glycosylated homodimer

Purity: >95% by SDS-PAGE Endotoxin Level: <0.5EU/ug

Molecular Weight: 13kDa and 25kDa in reduced and

Non-reduced SDS-PAGE respectively

Formulation: Lyophilized from a 0.2µm filtered

solution in 50mM NaAOC PH4.0 without carrier protein

## **Activity Assay**

The activity was measured by its ability to inhibit the IL-4 induced proliferation in mouse HT-2 cells (BALB/c spleen activated by sheep erythrocytes in the presence of IL-2).

#### Reconstitution

Briefly centrifuge the vial before opening. It is recommended to reconstitute the protein in sterile 4 mM HCl containing at least 0.1% human or bovine serum albumin to a desired concentration.

# Stability & Storage

Store in a manual defrost freezer. In general, the lyophilized protein is stable for 12 months if stored at -80°C. Reconstituted protein is stable for 4 weeks at 2 to 8°C under sterile conditions. Stored the reconstituted protein in aliquots at -20°C to -80°C for up to 3 months under sterile conditions. Avoid repeated freeze-thaw cycles.

## **Protein Description**

Transforming growth factor beta  $3(TGF \beta 3)$  is one of three closely related mammalian members of the large TGF  $\beta$  superfamily, TGF- $\beta$ 1,  $\beta$ 2, and  $\beta$ 3, signal through the same receptor and elicit similar biological responses. The mammalian TGF-β3 controls a vast array of biological processes including immune regulation, cell proliferation, epithelial-mesenchymal transition, and the bone formation. It is generally recognized to facilitate chondrogenic differentiation of precursor cells. It may also have a dose-dependent inhibitory effect on osteogenesis. Recombinant Human TGF-β3 is a 25.0 kDa protein composed of two identical 112-amino-acid polypeptide chains linked by a single disulfide bond.

## References

Derynck R, et al. (1985) Nature 316,701-705.

Sporn MBet al. (2006) Cytokine Growth Factor Rev. 17:3.

Ugo Ripamonti U, et al. (2016) Front. Physiol., 08,396.