

## Latent TGF-beta 1 Protein, Cynomolgus, Recombinant (His)

### General Information

Synonyms:	Transforming growth factor $\beta$ -1; Latent TGF- $\beta$ 1; TGFB; TGF $\beta$ -1; Transforming growth factor beta-1 proprotein; TGFB1
Protein Construction:	Leu30-Ser390 (Cys33Ser)
Species:	Cynomolgus
Expression Host:	HEK293 Cells
Accession:	F7HCV5
Molecular Weight:	11&35-45 KDa (reducing condition)
AA Sequence:	Leu30-Ser390

### QC Testing

Biological Activity:	Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	Greater than 95% as determined by reducing SDS-PAGE. (QC verified)
Endotoxin:	< 0.1 ng/ $\mu$ g (1 EU/ $\mu$ g) as determined by LAL test.
Formulation:	Lyophilized from a solution filtered through a 0.22 $\mu$ m filter, containing PBS, pH 7.4.

### Preparation and Storage

#### Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100  $\mu$ g/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

#### Stability & Storage:

Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

#### Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

### Protein Background

Transforming growth factor beta (TGF $\beta$ ) is a multifunctional cytokine that regulates cell growth, differentiation, adhesion, migration and death dependent on cell type, developmental stage, or tissue conditions. There are three isoforms of TGF $\beta$  (TGF $\beta$ -1, -2 and -3). latent TGF- $\beta$ 1 plays a protective role against bleomycin-induced lung inflammation and fibrosis. The inhibitory effect of latent TGF- $\beta$ 1 on lung inflammation and fibrosis may be associated with the counter-regulatory mechanism between latent and active TGF- $\beta$  1, the negative regulatory

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role of Smad7 in activation of both NF- $\kappa$ B and TGF- $\beta$ /Smad signaling pathways, and importantly, the GARP-Foxp3 regulatory mechanism in rebalancing the Treg/Th17 response. Some studies have shown that TGFB1 (Cys33Ser) mice develop multiorgan inflammation and tumors consistent with reduced TGF-b1 activity.

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