Data Sheet (Cat.No.TMPJ-00772)

Latent TGF-beta 1 Protein, Mouse, Recombinant (His & Avi), Biotinylated

General Information

Synonyms:	Transforming growth factor β-1;Latent TGF-β1;TGFB1;Transforming growth factor beta-1 proprotein;TGFB;TGFβ-1
Protein Construction:	Leu30-Ser390 (Cys33Ser)
Species:	Mouse
Expression Host:	HEK293 Cells
Accession:	P04202
Molecular Weight:	13&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/μg (1 EU/μg) as determined by LAL test.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing 20 mM PB, pH 6.5.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 μg/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 (TGFβ) 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 TGFβ (TGFβ-1, -2 and -3). latent TGF-β1 plays a protective role against bleomycin-induced lung inflammation and fibrosis. The inhibitory effect of latent TGF-β1 on lung inflammation and fibrosis may be associated with the counter-regulatory mechanism between latent and active TGF-β 1, the negative regulatory

role of Smad7 in activation of both NF-κB and TGF-β/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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