### Product Name: GMP Recombinant Human TGF-β1

Catalog#: PHH90058



#### **Summary**

Name TGF-β1

**Purity** Greater than 95% as determined by reducing SDS-PAGE

Endotoxin level ≤10 EU/mg

Construction Recombinant Human TGF-β1 is produced by our Mammalian cell

expression system and the target gene encoding Ala279-Ser390 is

expressed.

Accession # P01137
Tag Tag free

Host Mammalian cell

SpeciesHumanPredicted MW12.8 kDaFormLyophilized

Buffer 100 mM Glycine, 150 mM NaCl, 5% mannitol and 0.01% Tween 80, pH 4.0

Shipping The product is shipped at ambient temperature. Upon receipt, store it

immediately at the temperature listed below.

Stability&Storage Store at  $\leq -70^{\circ}$ C, stable for 6 months after receipt. Store at  $\leq -70^{\circ}$ C, stable for 3

months under sterile conditions after opening. Please minimize freeze-thaw

cycles.

**Reconstitution** Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It

is not recommended to reconstitute to a concentration less than 100µg/ml. Dissolve the lyophilized protein in distilled water. Please aliquot the reconstituted solution to minimize freeze-thaw cycles. Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is not recommended to reconstitute to a concentration less than 100µg/ml. Dissolve the lyophilized protein in distilled water. Please aliquot the reconstituted solution to minimize

freeze-thaw cycles.

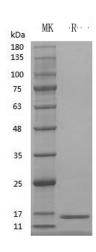
### **SDS-PAGE** image

Web: https://www.enkilife.com E-mail: order@enkilife.com techsupport@enkilife.com Tel: 0086-27-87002838

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### **Background**

**Alternative Names** 

References

Transforming Growth Factor Beta-1; TGF-Beta-1; Latency-Associated Peptide; LAP; TGFB1; TGFB

Transforming Growth Factor  $\beta$ -1 (TGF $\beta$ -1) is a secreted protein which belongs to the TGF-β family. TGFβ-1 is abundantly expressed in bone, articular cartilage and chondrocytes and is increased in osteoarthritis (OA). TGFβ-1 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-1 peptide.Disulfidelinked homodimers of LAP and TGF-beta 1 remain non-covalently associated after secretion, forming the small latent TGF-beta 1 complex. Purified LAP is also capable of associating with active TGF-beta with high affinity, and can neutralize TGF-beta activity. Covalent linkage of LAP to one of three latent TGF-beta binding proteins (LTBPs) creates a large latent complex that may interact with the extracellular matrix. TGF-beta activation from latency is controlled both spatially and temporally, by multiple pathways that include actions of proteases such as plasmin and MMP9, and/or by thrombospondin 1 or selected integrins. Although different isoforms of TGF-beta are naturally associated with their own distinct LAPs, the TGF-beta 1 LAP is capable of complexing with, and inactivating, all other human TGF-beta isoforms and those of most other species. Mutations within the LAP are associated with Camurati-Engelmann disease, a rare sclerosing bone dysplasia characterized by inappropriate presence of active TGF-beta 1.

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#### Note

For research use only.