10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

TGF-β1

Catalog # PVGS1688

Specification

TGF-β1 - Product Information

Primary Accession P18341

Species
Bovine

Sequence
Ala279-Ser390

Purity
≥ 95% as analyzed by SDS-PAGE

Endotoxin Level
< 0.2 EU/ µg of protein by gel clotting method

Biological Activity
ED₅₀ < 0.2 ng/ml, measured in ability to inhibit the mouse IL-4-dependent proliferation of HT-2 cells.

Expression System
CHO

Theoretical Molecular Weight
12.8 kDa (monomer)

Formulation **Lyophilized from a 0.2 µm filtered solution in 50 mM NaAc, 50 mM NaCl, pH 5.0.**

Reconstitution
It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in ddH₂O or 50 mM Citrate up to 100 µg/ml.

Storage & Stability
Upon receiving, this product remains stable for up to 6 months at lower than -70 °C. Upon reconstitution, the product should be stable for up to 1 week at 4 °C or up to 3 months at -20 °C. For long-term storage after reconstitution, it is recommended that a carrier protein (e.g., 0.1% BSA) be added. Avoid repeated freeze-thaw cycles by making single-use aliquots before the solution is stored at -20 °C.

TGF-β1 - Additional Information

Gene ID 282089

Other Names
Transforming growth factor beta-1 proprotein, Latency-associated peptide, LAP, Transforming growth factor beta-1, TGF-beta-1, TGFB1

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Target Background
TGF-β1 (transforming growth factor beta 1) is one of three closely related mammalian members of the large TGF-β1 superfamily that share a characteristic cystine knot structure. TGF-β1, -2 and -3 are highly pleiotropic cytokines that act as cellular switches to regulate processes such as immune function, proliferation and epithelial-mesenchymal transition. Each TGF-β isoform has some non-redundant function; for TGF-β1, mice with targeted deletion show defects in hematopoiesis and endothelial differentiation and died of overwhelming inflammation. TGF-β1 signaling begins with high-affinity binding to a type II ser/thr kinase receptor termed TGF-β RII. This receptor then phosphorylates and activates a second ser/thr kinase receptor, TGF-β RI (also called activin receptor-like kinase (ALK)-5), or alternatively, ALK-1. This complex phosphorylates and activates Smad proteins that regulate transcription.

TGF-β1 - Protein Information

Name TGFB1

Function
Transforming growth factor beta-1 proprotein: Precursor of the Latency-associated peptide (LAP) and Transforming growth factor beta-1 (TGF-beta-1) chains, which constitute the regulatory and active subunit of TGF-beta-1, respectively.

Cellular Location
[Latency-associated peptide]: Secreted, extracellular space, extracellular matrix {ECO:0000250|UniProtKB:P01137}

TGF-β1 - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

TGF-β1 - Images