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TGF-β1

Catalog # PVGS1688

Product Information

Primary Accession P18341
Species Bovine

Sequence Ala279-Ser390

Purity ≥ 95% as analyzed by SDS-PAGE

Endotoxin Level

Biological Activity ED₅₀ Expression System CHO

Theoretical Molecular Weight 12.8 kDa (monomer)

Formulation Lyophilized from a 0.2 Im 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 □g/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.

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

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- β 1, -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- β 1, mice with targeted deletion show defects in hematopoiesis and endothelial differentiation and died of overwhelming inflammation. TGF- β 1 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 \Box ike kinase (ALK)-5), or alternatively, ALK-1. This

complex phosphorylates and activates Smad proteins that regulate transcription.

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}

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.