

Recombinant Bovine Tgfb1 Protein, Ala279-Ser390

Cat. No. Tgfb1-33B **Lot. No.** (See product label)

SPECIFICATION

Product Overview Recombinant Bovine Tgfb1 Protein (Ala279-Ser390) without tag was expressed in CHO.

Species Bovine

Source CHO

ProteinLength Ala279-Ser390

Description

TGF- β 1 (transforming growth factor beta 1) is one of three closely related mammalian members of the large TGF- β 1 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-like kinase (ALK)-5), or alternatively, ALK-1. This complex phosphorylates and activates Smad proteins that regulate transcription.

Bio-activity

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

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Molecular Mass	Theoretical Molecular Weight: 12.8 kDa (monomer) Apparent Molecular Weight: ~12 kDa, on SDS-PAGE under reducing conditions.
Endotoxin	< 0.2 EU/μg of protein by gel clotting method
Purity	≥ 95% as analyzed by SDS-PAGE
Storage	Upon receiving, this product remains stable for up to 6 months at lower than -70 centigrade. Upon reconstitution, the product should be stable for up to 1 week at 4 centigrade or up to 3 months at -20 centigrade. 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 centigrade.
Storage Buffer	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 ddH ₂ O or 50 mM Citrate up to 100 μg/mL.

GENE INFORMATION

Gene Name	TGFB1 transforming growth factor beta 1 [Bos taurus (cattle)]
Official Symbol	TGFB1
Synonyms	TGFB1; transforming growth factor beta 1; transforming growth factor beta-1 proprotein; TGF-beta-1; transforming growth factor, beta 1 (Camurati-Engelmann disease)
Gene ID	282089

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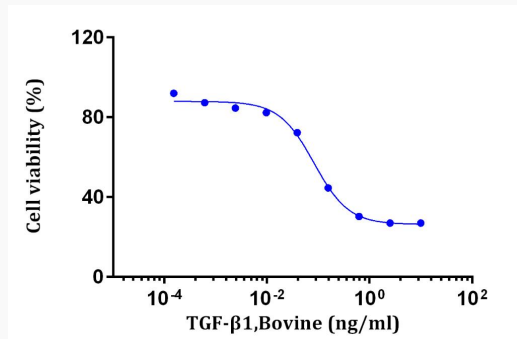
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mRNA Refseq [NM_001166068](#)

Protein Refseq [NP_001159540](#)

UniProt ID [P18341](#)

Activity



SDS-PAGE

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