

Rev03
Update: Dec,14,2021

DATASHEET

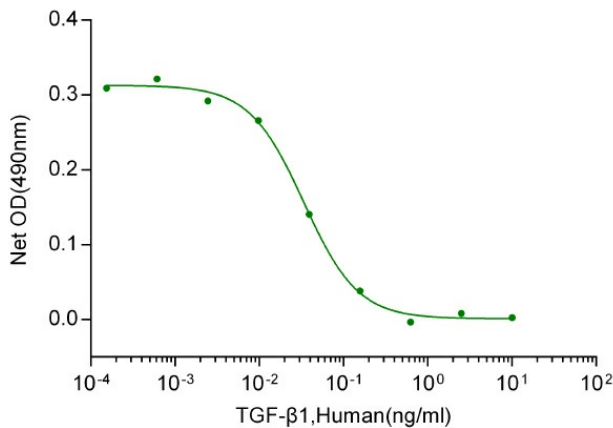
TGF- β 1, Human

Cat. No.: Z03411

Product Introduction

Species	Human
Protein Construction	TGF-β1 (Ala279-Ser390) Accession # P01137
Purity	> 95% as analyzed by SDS-PAGE
Endotoxin Level	< 0.2 EU/ μ g of protein by gel clotting method
Biological Activity	ED ₅₀ < 0.2 ng/ml, measured in ability to inhibit the mouse IL-4-dependent proliferation of HT-2 cells.
Expression System	CHO
Apparent Molecular Weight	~12 kDa, on SDS-PAGE under reducing conditions.
Formulation	Lyophilized from a 0.2 μ m 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 μ 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 it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw cycles.

Examples



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

Background

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.

Synonyms : TGF-beta-1; CED; DPD1; TGFB; TGF-b1; TGFB1; CEDLAP; latency-associated peptide; TGF beta; TGF-beta 1 protein; transforming growth factor beta-1

For laboratory research use only. Direct human use, including taking orally and injection and clinical use are forbidden.