

Recombinant TGF- β 1, Human

Catalog: BK0360

Species: Human

Source: CHO

Background:

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.

Recombinant Human TGF- β 1 produced in CHO cells is a polypeptide chain containing 112 amino acids. A fully biologically active molecule, rhTGF- β 1 has a molecular mass of 12 kDa, analyzed by reducing SDS-PAGE and is obtained by chromatographic techniques at GenScript.

Product:

Lyophilized from a 0.2 μ m filtered solution in 50mM NaAc, 50mM NaCl, pH 5.0.

Molecular Weight:

12 kDa, observed by reducing SDS-PAGE.

Swiss-Prot:

P01137

Purification&Purity:

> 95% as analyzed by reducing SDS-PAGE.

Instructions:

Endotoxin Level:< 0.2 EU/ μ g, determined by LAL method.

Reconstitution: Reconstituted in ddH₂ O or 50mM Citrate at 100 μ g/ml.

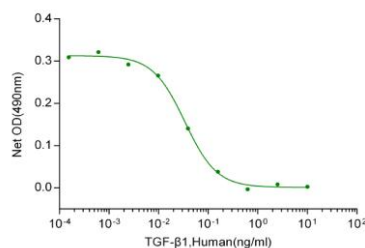
Storage&Stability:

Lyophilized recombinant TGF- β 1 remains stable for up to 6 months at lower than -70 $^{\circ}$ C from date of receipt. Upon reconstitution, Human TGF- β 1 should be stable for up to 1 week at 4 $^{\circ}$ C or up to 3 months at -20 $^{\circ}$ C. For long term storage it;s recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw cycles.

Biological Activity:

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

DATA:



Note:

For research use only, not for use in diagnostic procedure.

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