

TGF beta 1/TGFB1 Protein, Mouse/Rat (HEK293)

Cat. No.:	HY-P70648
Synonyms:	TGF-beta-1; CED; DPD1; TGFB; TGF-b1; TGFB1; CEDLAP; latency-associated peptide; TGFbeta; TGF-beta 1 protein; transforming growth factor beta-1; TGF-β1; TGF beta1; TGFbeta 1; TGF-beta 1; TGFbeta
Species:	Rat;Mouse
Source:	HEK293
Accession:	P04202(A279-S390)
Gene ID:	21803
Molecular Weight:	Approximately 13.0 kDa

PROPERTIES

AA Sequence	<p> A L D T N Y C F S S T E K N C C V R Q L Y I D F R K D L G W K W I H E P K G Y H A N F C L G P C P Y I W S L D T Q Y S K V L A L Y N Q H N P G A S A S P C C V P Q A L E P L P I V Y Y V G R K P K V E Q L S N M I V R S C K C S </p>
Biological Activity	The ability to inhibit IL-4-dependent proliferation of TF-1 human erythroleukemic cells has an ED50 value of 5-25 pg/mL.
Appearance	Lyophilized powder
Formulation	Lyophilized from a 0.2 μm filtered solution of 4 mM HCl.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in 4mM HCl. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	<p>TGFB1 (transforming growth factor beta 1) is a potent cytokine playing a driving role in development, fibrosis and cancer. It is synthesized as prodomain-growth factor complex that requires tethering to LTBP (latent transforming growth factor beta binding protein) for efficient secretion into the extracellular space. Upon release, this large latent complex is sequestered by anchorage to extracellular matrix (ECM) networks, from which the mature growth factor needs to be activated in order to reach its receptors and initiate signaling^[2].</p>
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REFERENCES

- [1]. Ingman WW, et al. The essential roles of TGFB1 in reproduction. Cytokine Growth Factor Rev. 2009;20(3):233-239.
- [2]. Nüchel J, et al. TGFB1 is secreted through an unconventional pathway dependent on the autophagic machinery and cytoskeletal regulators. Autophagy. 2018;14(3):465-486.
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Caution: Product has not been fully validated for medical applications. For research use only.

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