

GMP TGF beta 1/TGFB1 Protein, Human (CHO)

Cat. No.:	HY-P70543G
Synonyms:	Transforming Growth Factor Beta-1; TGF-Beta-1; Latency-Associated Peptide; LAP; TGFB1; TGFB; TGF-β1; TGF beta1; TGFbeta 1; TGF-beta 1; TGFbeta; TGF-beta-1
Species:	Human
Source:	CHO
Accession:	P01137
Gene ID:	7040
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</p> <p>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 A P C C V P</p> <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 specific activity is > 2×10 ⁷ U/mg.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of 50 mM Glycine-HCl, 150 mM NaCl, pH 2.5.
Endotoxin Level	<0.1 EU/μg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in injection water.
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>TGF beta 1/TGFB1 Protein (transforming growth factor beta 1) is a multifunctional cytokine, which is synthesized by almost all cells. TGF beta 1/TGFB1 Protein has a high ability to bind with TGFβRII^[3].</p> <p>The sequence of amino acids in TGFβ1 proteins from different species is very stable, which leads to the conclusion that in the process of evolution, TGFβ has been only slightly altered, and that both in humans and in animals, its function is similar. TGF beta 1/TGFB1 Protein is secreted as an inactive peptide, forming part of a 'latent complex' consisting of a mature TGFB1 dimer non-covalently bound to its latency-associated peptide (LAP) and, via LAP, to latent TGFβ-binding proteins (LTBPs). Activated TGF beta 1/TGFB1 Protein binds to ubiquitously expressed cell-surface TGFβ1 type I receptors (TGFβRI) and type II receptors (TGFβRII), which are transmembrane serine/threonine kinases^[4].</p>
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TGF beta 1/TGFB1 Protein regulates cell proliferation, growth, differentiation and cells movement. TGFB1 has immunomodulatory effects. TGF beta 1/TGFB1 Protein has profibrogenic effects. TGF beta 1/TGFB1 Protein action can be local and systemic. TGF beta 1/TGFB1 Protein plays a driving role in development, fibrosis and cancer^[4].

REFERENCES

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Caution: Product has not been fully validated for medical applications. For research use only.

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