

Animal-Free TGF beta 3/TGFB3 Protein, Human (His)

Cat. No.:	HY-P700152AF
Synonyms:	ARVD; ARVD1; LDS5; RNHF; TGFB3; TGF-B3
Species:	Human
Source:	E. coli
Accession:	P10600 (A301-S412)
Gene ID:	7043
Molecular Weight:	Approximately 13.66 kDa

PROPERTIES

AA Sequence	<p> M A L D T N Y C F R N L E E N C C V R P L Y I D F R Q D L G W K W V H E P K G Y Y A N F C S G P C P Y L R S A D T T H S T V L G L Y N T L N P E A S A S P C C V P Q D L E P L T I L Y Y V G R T P K V E Q L S N M V V K S C K C S </p>
Biological Activity	Measure by its ability to inhibit IL-4 induce proliferation in HT-2 cells. The ED ₅₀ for this effect is <50 pg/mL. The specific activity of recombinant human TGF beta 3 is > 2x10 ⁷ IU/mg.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a solution containing 0.2 M NaCl, 20 mM sodium citrate, pH 3.5.
Endotoxin Level	<0.1 EU per 1 µg of the protein by the LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O.
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>Latent Transforming growth factor beta-3 (TGF-beta-3) proprotein serves as the precursor for both the Latency-associated peptide (LAP) and the active TGF-beta-3 chains, acting as the regulatory and functional subunits, respectively. It plays a vital role in maintaining the latent state of TGF-beta-3 within the extracellular matrix. Through non-covalent association with TGF-beta-3, Latent TGF-beta-3 actively regulates the activation process by interacting with key 'milieu molecules' such as LTBP1 and LRRC32/GARP. These interactions contribute to the controlled activation of TGF-beta-3, with LTBP1 and LRRC32/GARP acting as crucial components in this regulatory mechanism. Additionally, interaction with integrins induces structural changes in the Latency-associated peptide chain, leading to the subsequent release of active TGF-beta-3. This</p>
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sophisticated molecular interplay underscores the pivotal role of Latent TGF-beta-3 in orchestrating the regulated activation of TGF-beta-3 in various physiological contexts.

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

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