

Animal-Free TGF beta 2/TGFB2 Protein, Human (His)

Cat. No.:	HY-P700151AF
Synonyms:	G-TSF; LDS4; TGFB2
Species:	Human
Source:	E. coli
Accession:	P61812 (A303-S414)
Gene ID:	7042
Molecular Weight:	Approximately 13.66 kDa

PROPERTIES

AA Sequence	<p> M A L D A A Y C F R N V Q D N C C L R P L Y I D F K R D L G W K W I H E P K G Y N A N F C A G A C P Y L W S S D T Q H S R V L S L Y N T I N P E A S A S P C C V S Q D L E P L T I L Y Y I G K T P K I E Q L S N M I V K S C K C S </p>
Biological Activity	Measure by its ability to inhibit IL-4-induced proliferation in HT-2 cells. The ED ₅₀ for this effect is <0.2 ng/mL. The specific activity of recombinant human TGF beta 2 is >5 x 10 ⁶ IU/mg.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a solution containing 20 mM sodium citrate, 0.2 M NaCl, pH 3.5.
Endotoxin Level	<0.01 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>As a central player in the TGF-beta-2 signaling pathway, the TGF beta 2/TGFB2 protein assumes the role of a precursor for both the Latency-associated peptide (LAP) and the Transforming growth factor beta-2 (TGF-beta-2) chains. These chains collectively form the regulatory and active subunits of TGF-beta-2, respectively. Notably, TGF beta 2/TGFB2 is essential for maintaining the TGF-beta-2 chain in a latent state during storage within the extracellular matrix. The protein engages in non-covalent associations with TGF-beta-2, intricately regulating its activation through interactions with 'milieu molecules,' including LTBP1 and LRRC32/GARP. These interactions play a pivotal role in controlling the activation of TGF-beta-2, contributing to the finely tuned regulation of this critical signaling pathway.</p>
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Caution: Product has not been fully validated for medical applications. For research use only.

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