TGF beta 1/TGFB1 Protein, Oncorhynchus mykiss (P. pastoris, His)

Cat. No.:	HY-P700474
Synonyms:	TGF-beta-1; TGFB1; TGFB; rHuTGF-β1
Species:	Others
Source:	P. pastoris
Accession:	O93449 (Q271-S382)
Gene ID:	100136774
Molecular Weight:	15 kDa

PROPERTIES

AA Sequence	Q T T T E E I C S D K S E S C C V R K L Y I D F R K D L G W K W I H E P T G Y F A N Y C I G P C T Y I W N T E N K Y S Q V L A L Y K H H N P G A S A Q P C C V P Q V L E P L P I I Y Y V G R Q H K V E Q L S N M I V K S C R C S
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of Tris/PBS-based buffer, 6% Trehalose, pH 8.0.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O.
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	The Transforming Growth Factor Beta-1 (TGFB1) proprotein serves as a precursor for both the Latency-associated peptide (LAP) and the active Transforming Growth Factor Beta-1 (TGF-beta-1) chains, which respectively constitute the regulatory and active subunits of TGF-beta-1. It plays a crucial role in maintaining the TGF-beta-1 chain in a latent state during storage within the extracellular matrix. Through non-covalent association with TGF-beta-1, it regulates the activation of TGF-beta-1 by interacting with 'milieu molecules' such as LTBP1, LRRC32/GARP, and LRRC33/NRROS. These interactions are pivotal in controlling the activation of TGF-beta-1. Moreover, the proprotein's interaction with integrins (ITGAV:ITGB6 or ITGAV:ITGB8) leads to the distortion of the Latency-associated peptide chain, resulting in the subsequent release of active TGF-beta-1.

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

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