

## TGF beta 1/TGFB1 Protein, *Xenopus laevis* (P. pastoris, His)

Cat. No.:	HY-P700483
Synonyms:	TGF-beta-1; TGFB1; TGFB; rHuTGF-β1
Species:	<i>Xenopus laevis</i>
Source:	<i>P. pastoris</i>
Accession:	P16176 (G271-S382)
Gene ID:	397778
Molecular Weight:	14.6 kDa

### PROPERTIES

AA Sequence	G V G Q E Y C F G N    N G P N C C V K P L    Y I N F R K D L G W    K W I H E P K G Y E A N Y C L G N C P Y    I W S M D T Q Y S K    V L S L Y N Q N N P    G A S I S P C C V P D V L E P L P I I Y    Y V G R T A K V E Q    L S N M V V R S C N    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.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH <sub>2</sub> 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>The Transforming Growth Factor Beta-1 (TGFB1) proprotein serves as the precursor for both the Latency-associated peptide (LAP) and the active Transforming Growth Factor Beta-1 (TGF-beta-1) chains, constituting the regulatory and active subunit of TGF-beta-1, respectively. It plays a crucial role in maintaining the TGF-beta-1 chain in a latent state during storage within the extracellular matrix. Through a non-covalent association with TGF-beta-1, TGFB1 regulates its activation by interacting with 'milieu molecules' such as LTBP1, LRRC32/GARP, and LRRC33/NRROS, which collectively control the activation of TGF-beta-1. Furthermore, the interaction of TGFB1 with integrins (ITGAV:ITGB6 or ITGAV:ITGB8) induces the distortion of the Latency-associated peptide chain, leading to the subsequent release of active TGF-beta-1.</p>
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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