

Latent TGF beta 3/Latent TGFB3 Protein, Human (HEK293, His)

Cat. No.:	HY-P700890
Synonyms:	TGFB3; ARVD; TGF-beta3; TGF-β; TGFβ3; TGFβ
Species:	Human
Source:	HEK293
Accession:	P10600-1 (L24-S412)
Gene ID:	7043
Molecular Weight:	46-50 kDa & 55-60 kDa

PROPERTIES

Biological Activity	Immobilized Human Latent TGF beta 3, His Tag at 1μg/ml (100μl/well) on the plate. Dose response curve for Human TGF-beta RII, mFc Tag with the EC ₅₀ of 12.1ng/ml determined by ELISA.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.22 μm filtered solution of 20mM PBS, pH 7.4. Normally 8% trehalose is added as protectant before lyophilization.
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 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	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 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.
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Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA