Rev. 1

Recombinant Human Transforming Growth Factor-β3 (rhTGFb3)

Catalog #105-53

Description

There are three mammalian isoforms of transforming growth factor-beta (TGF-β), namely TGF-β1, TGF-β2, and TGF-β3. These multifunctional cytokines signal through the same receptor and elicit similar biological responses. They play crucial roles in regulating cell proliferation, growth, differentiation, motility, and the synthesis and deposition of the extracellular matrix. These cytokines are secreted in precursor form consisting of a bioactive C-terminal domain attached to an N-terminal domain known as latency associated protein (LAP). Cleavage of LAP results in the mature protein, which functions as a disulfide-linked homodimer. As with all members of the family, TGF-β3 is highly conserved across species, with mouse and human TGF-β3 demonstrating 100% sequence homology and cross-species activity. Recombinant Human TGF-β3 consists of two identical 112-amino acid polypeptide chains connected by a single disulfide bond and has a molecular weight of 25.0 kDa.

Specifications

Synonyms:	Transforming Growth Factor-β3, TGFB3, Beta 3, ARVD1, RNHF
AA Sequence:	ALDTNYCFRN LEENCCVRPL YIDFRQDLGW KWVHEPKGYY ANFCSGPCPY LRSADTTHST VLGLYNTLNP EASASPCCVP QDLEPLTILY YVGRTPKVEQ LSNMVVKSCK CS
Source:	mammalian cell
Molecular Weight:	25.0 kDa, a disulfide bond linked non-glycosylated polypeptide chains containing two 112 amino acids
Purity	> 95%

Quality Control

Endotoxin:	<0.1 ng/µg of protein (<1 EU/µg)
Sterility	No microorganisms
Physical Appearance:	Light yellow to white powder

Formulation

Lyophilized from a 0.2µm filtered solution in 50 mM Glycine, 50 mM NaCl, pH 2.50.

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Reconstitution

Reconstitute in sterile distilled water or 0.1 M HCl containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL.

Shipping and Storage

Gel ice. Upon receipt, store at -20ºC after receiving. Upon reconstitution, store at 2-8ºC for up to one week. For maximal stability, aliquot and store at -20ºC. Avoid repeated freeze/ thaw cycles.

Usage

rhTGFb3 is for research use only. It is not approved for human or animal use, or for application in clinical or *in vitro* diagnostic procedures.