



Recombinant Human Transforming Growth Factor- β 1 (rhTGF β 1)

Catalog #105-51

Description

There are three mammalian isoforms of transforming growth factor-beta (TGF- β), namely TGF- β 1, TGF- β 2, and TGF- β 3. 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. The release of the biologically active TGF- β isoform from a latent complex involves intracellular proteolytic processing. TGF- β 1 is the most abundant isoform that is secreted by nearly every cell type, and initially recognized for its ability to induce phenotypic transformation in fibroblasts. TGF- β 1 has more recently been linked to skin tumor formation. Recombinant Human TGF- β 1 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- β 1, Differentiation inhibiting factor, Cartilage-inducing factor
AA Sequence:	ALDTNYCFSS TEKNCCVRQL YIDFRKDLGW KWIHEPKGYH ANFCLGPCPY IWSLDTQYSK VLALYNQHN PGASAAPCCV PQALEPLPIV YYVGRKPKVE QLSNMIVRSCKCS
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/ μ g of protein (<1 EU/ μ g)
Sterility	No microorganisms
Physical Appearance:	Light yellow to white powder

Rev. 1

Formulation

Lyophilized from a 0.2µm filtered concentrated (1mg/ml) solution in 30 mM sodium acetate, pH 3.0.

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

Usage

rhTGFb1 is for research use only. It is not approved for human or animal use, or for application in clinical or *in vitro* diagnostic procedures.