

Recombinant Human Transforming Growth Factor-beta 3 (rh TGF-beta 3)

Synonyms: none

Introduction: The three mammalian isoforms of TGF- β - TGF- β 1, β 2, β 3 - signal through the same receptor and elicit similar biological responses. They are multifunctional cytokines that regulate cell proliferation, growth, differentiation and motility as well as synthesis and deposition of the extracellular matrix. They are involved in various physiological processes including embryogenesis, tissue remodeling and wound healing. They are secreted predominantly as latent complexes which are stored at the cell surface and in the extracellular matrix. The release of biologically active TGF- β isoform from a latent complex involves proteolytic processing of the complex and /or induction of conformational changes by proteins such as thrombospondin-1. The physiological role of TGF- β 3 is still unknown but its expression pattern suggests a role in the regulation of certain development processes.

Description: Recombinant human TGF-beta 3 produced in E.Coli is a disulfide-linked homodimeric, non-glycosylated, polypeptide chain containing two 112 amino acid chains and having a total molecular mass of 25.5kDa. The rh TGF-beta 3 is purified by standard chromatographic techniques.

Source: *Escherichia Coli*.

Physical Appearance: Sterile filtered lyophilized powder.

Formulation: lyophilized from a 0.22 μ m filtered solution in 100mM acetic acid
The aliquots of 1 μ g and 2 μ g contain Trehalose 5% (w/vol) for better recovery

Solubility: It is recommended to reconstitute lyophilized TGF-beta 3 in sterile H₂O not less than 100 μ g/ml, which can then be further diluted to other aqueous solutions.

Stability: Lyophilized TGF-beta 3 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution TGF-beta 3 should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Purity: Greater than 95.0% as determined by SDS-PAGE.

Amino Acid Sequence: ALDTNYCFR NLEENCCVRP LYIDFRQDLG WKWVHEPKGY YANFCSGPCP
YLRSA DTTHS TVLGLYNTLN PEASAPCCV PQDLEPLTIL YYVGRTPKVE QLSNMVVKSC KCS

Biological Activity: Determined by hTGF-beta3 induced induced STAT activation hTGF β -receptor transfected murine Ba/F3 cells the ED50 is < 0.05 ng/ml.

Endotoxicity: The endotoxin level is less than 1 EU / μ g determined by LAL method

This material is offered for **research use only**. Not for use in human. For in vitro use only. ImmunoTools will not be held responsible for patent infringement or other violations that may occur with the use of our products.

<i>small</i>	2 μ g	Cat.N°	11344482
<i>medium</i>	10 μ g	Cat.N°	11344483
<i>large</i>	50 μ g	Cat.N°	11344485
<i>x-large</i>	250 μ g	Cat.N°	11344487

ImmunoTools Excellent Quality - Advantageously priced

Gladiolenweg 2; 26169 Friesoythe; Germany
phone:+49-(0)4491-400997, fax:+49-(0)4491-400998, info@immunotools.com
www.immunotools.com