

TGF-beta 3 (E.coli derived) Human E. coli

Product Data Sheet

Type: Recombinant

Source: E. coli

Species: Human

Other names: Transforming Growth Factor-?3

Cat. No.:

RBG10314002 (2 µg)

RBG10314010 (10 µg)

RBG10314100 (100 µg)

Description

The three mammalian isoforms of TGF-beta, TGF-beta1, beta2, and beta3, 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 the biologically active TGF-beta 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-beta3 is still unknown, but its expression pattern suggests a role in the regulation of certain development processes. Recombinant Human TGF-beta3 is a 25.0 kDa protein composed of two identical 112 amino acid polypeptide chains linked by a single disulfide bond.

Research topic

Apoptosis, Cardiovascular disease, Coronary artery disease, Immune Response, Infection and Inflammation, Oncology

Amino Acid Sequence

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ALDTNYCFRN LEENCCVRPL YIDFRQDLGW K WVHEPKGYY ANFCSGPCPY LRSADTTHST VLGLYNTLNP EASASPCCVP
QDLEPLTILY YVGRTPKVEQ LSNMVVKSCK CS
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Source

E. coli

Purity

98%

Biological Activity

The ED₅₀ was determined by TGF-beta3's ability to inhibit the mouse IL-4-dependent proliferation of mouse HT-2 cells is ? 0.05 ng/ml, corresponding to a specific activity of ? 2×10⁷ units/mg.

Endotoxin

Endotoxin level is <0.1 ng/µg of protein (<1EU/µg).

Reconstitution

Centrifuge the vial prior to opening. Reconstitute in 5-10 mM Citric Acid to a concentration of 0.1-1.0 mg/ml. Do not vortex. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at

- 20°C to -80°C.

Storage, Stability/Shelf Life

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