**Recombinant Human TGF-β3 Active (Transforming Growth Factor-β3)**

**Human recombinant protein expressed in**

*Nicotiana benthamiana*

**RF004**

- **Mol.Formula:** C600H902N166O174S10
- **Extinction coeff:** E0.1% = 1.72 (A 280 nm)
- **Mol. Weight:** recombinant human TGF-β3 is a 27.2 kDa protein composed of two identical 118 amino acid polypeptide chains linked by a single disulfide bond.
- **p.l:** 6.75
- **Purity:** > 97% by SDS-PAGE gel

**Animal Free product**

- **Endotoxin level**: <0.04 EU/ μg protein (LAL method)

**Sequence:**

HHHHHHAIDNYCFRNLNDENCCVRPLY1DFRQDLGKWVHHP
KGYANFCGPYPYLSADC7HTVVLGLYNTLNPESASPCCV
PQDLPLETLYVGRTPKVQELSNMVKSCXCS

**Description:**

Recombinant human TGF-β3 is a 27.2 kDa protein composed of two identical 118 amino acid peptide chains linked by a single disulfide bond. Transforming growth factor-β is a family of five related cytokines that have been shown on a wide variety of normal and neoplastic cells, indicating the importance of these homo-dimer proteins as multi-functional regulators of cellular activity. The three mammalian isoforms of TGF-β (TGF-β1, TGF-β2 and TGF-β3) signal through the same receptor and elicit similar biological responses. They are involved in physiological processes as embryogenesis, tissue remodelling and wound healing.

**Source:**

It is produced by transient expression of TGF-β3 in non-transgenic plants. Recombinant human TGF-β3 contains a 6-His-tag at the N-terminal end and is purified by sequential chromatography (FPLC). This product contains no animal-derived components or impurities.

**Formulation:**

Lyophilized from a Tris HCl 0.05M buffer at pH 7.4.

**Reconstitution Recommendation:**

Lyophilized protein should be reconstituted in water to a concentration of 5 - 25 ng / μl. Due to the protein nature, dimmers and multimers may be observed.

**Storage and Stability:**

This lyophilized preparation is stable at 2-8°C for short term, long storage it should be kept at -20°C. Reconstituted protein should be stored in working aliquots at –20°C and it is recommended to add a carrier protein (0.1% HSA or BSA). Repeated freezing and thawing is not recommended.

**Purity Confirmation:**

The protein was resolved by SDS polyacrylamide gel electrophoresis and the gel was stained with Coomassie blue.

![Figure 1. SDS-PAGE analysis of recombinant TGF β3. Samples were loaded in 15% SDS-polyacrylamide gel and stained with Coomassie blue.](image)

Lane MWM: Molecular weight marker (kDa); lane a: contains 0.2 μg of recombinant TGF β3.

We recommend for optimal usage follow instructions of batch Quality control sheet

For R+D purposes only. Purchaser must determine the suitability of the product(s) for their particular use.
**Recombinant Human TGF-β3 Active**

**Serological Identification:**
The protein was electrophoresed under reducing condition on a 15% SDS-polyacrylamide gel, transferred by electroblotting to a NC membrane and visualized by immune-detection with specific antibody TGF-β3.

**Biological Activity:**
The biological activity of TGF-β3 is measured in culture by its ability to inhibit the mink lung epithelial (Mv1Lu) cells proliferation.
ED50 ≤50ng/ml

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**Figures:**

- Figure 2. Western Blot analysis of recombinant TGF β3. Lane MWM: Molecular weight marker (kDa), lane 1: 0.2 ug of TGF β3.

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**References**


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*Agrenvec products are expressed in a plant system and intrinsically have extremely low endotoxin levels and are Animal-free