



Recombinant Human TGF- β 3 **(Transforming Growth Factor- β 3)**

Human recombinant protein expressed in *Nicotiana benthamiana*.

RF002

Molecular formula: C₆₀₀H₉₀₂N₁₆₆O₁₇₄S₁₀

Extinction coefficient: E^{0.1%} 1.72 (A₂₈₀ nm)

Molecular weight: 13.5 kDa single chain containing 118 amino residues

p.I: 6.75

Purity: >97 % as determined by SDS-PAGE gel

Endotoxin level: < 0.04 EU/ μ g protein (LAL method)

Animal-free product*

Sequence:

HHHHHHALDTNYCFRNLEENCCVRPLYIDFRQDLGWKVVHEPK
GYANFCSGPCPYLRSADTTSTVLGLYNTLNPEASASPCCVPQ
DLEPLTILYYVGRTPKVEQLSNMVKCKCS

Description: 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- β 1, TGF- β 2 and TGF- β 3) 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- β 3 in non-transgenic plants. Recombinant human TGF- β 3 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 50 ng / μ l. Due to the protein nature, dimmers and multimers may be observed.

Storage and Stability: This lyophilized preparation is stable at 2-8^o C. For long storage should be kept at -20^o C and it is recommended to add a carrier protein (0.1% HSA or BSA). Repeated freezing and thawing is not recommended.

References

- Ten Dijke, P., et al. (1988). Identification of a new member of the transforming growth factor type β gene family. Proc. Natl. Acad. Sci. USA, 85: 4715-4719.
- Massague, J. (1990). The transforming growth factor-beta family. Ann. Rev. Cell Biol., 6:597-641.
- Miller, D.A., et al. (1990). Transforming growth factor β : a family of growth regulatory peptides. Ann. N.Y. Acad. Sci., 593: 208-217.
- Bocharov. E.C., et al. (2002). Dynamics-modulated biological activity of transforming growth factor beta3 J. Biol. Chem., 277(48): 46273-46279.

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

For R+D purposes only. Purchaser must determine the suitability of the product(s) for their particular use