Recombinant Human TGF-β2 Active
(Transforming Growth Factor-β2)

Human recombinant protein expressed in *Nicotiana benthamiana*

RF003

Mol. Formula: C602H909N167O171S10

Extinction coeff: E0.1% = 2.02 (A 280 nm)

Mol. Weight: recombinant human TGF-β2 is a 27.08 kDa protein composed of two identical 118 amino acid polypeptide chains linked by a single disulfide bond.

p.I: 7.72

Purity: > 97% by SDS-PAGE gel

Animal Free product*

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

Sequence:

HHHHHHALDAAYCFRNVQDNCCLRPLYIDFKRDLGWKWIHEPKGYN ANFCAGACPYLWSSDTQHSRVLSLYNTINPEASASPCCVSQDLEPLT I LYYIGKTPKIEQLSNMIVKSCKCS

Description:

Recombinant human TGF-β2 is a 27.08 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-dimmer 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-β2 in non-transgenic plants. Recombinant human TGF-β2 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 25-50 ng / µl. Due to the protein nature, dimmers and multimers may be observed.

Storage and Stability:

This lyophilized preparation is stable at 2-8º C for short term, long storage it should be kept at -20ºC. Reconstituted protein should be stored in working aliquots at –20°C. 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.

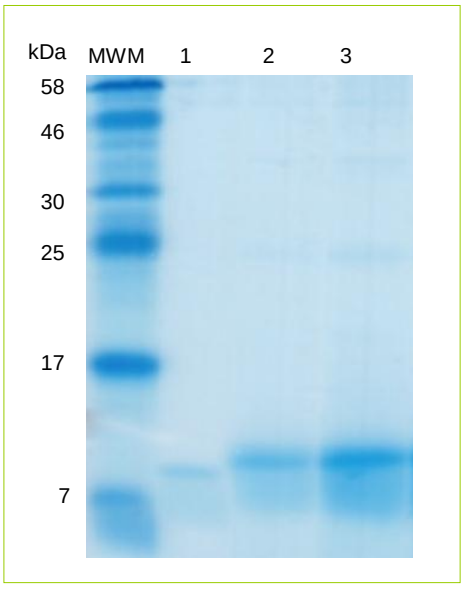

Figure 1. SDS-PAGE analysis of recombinant TGF-β2. Samples were loaded in 15% SDS-polyacrylamide gel and stained with Coomassie blue. MWM: Molecular weight marker (kDa); Lane 1: commercial recombinant TGF-β2 (no His-tag); Lane 2-3: contains 250-500 ng of 6-His-tag Agrenvec´s recombinant TGF-β2.

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.

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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-β2 .

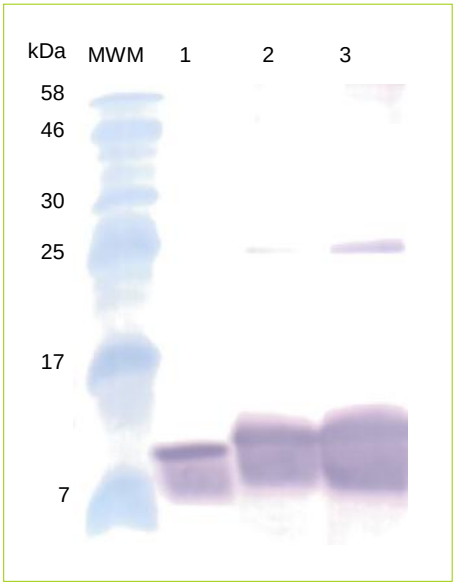
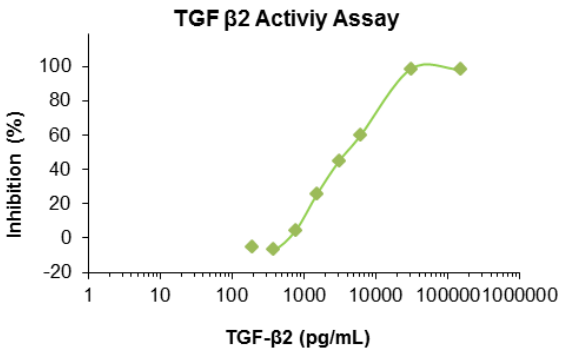


Figure 2. Western Blot analysis of recombinant TGF-β2. MWM: Molecular weight marker (kDa); Lane 1: commercial recombinant TGF-β2 (no His-tag); Lane 2-3: contains 250-500 ng of 6-His-tag Agrenvec´s recombinant TGF-β2.

Biological Activity:

The biological activity of TGF-β2 is measured in culture by its ability to inhibit the mink lung epithelial (Mv1Lu) cells proliferation.

ED50 ≤ 50ng/ml



References

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