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Recombinant Human Transforming growth factor, beta 1 --- Western Blotting Control

Catalog No.	Size	Species	Protein Accession No.
230-00005-WBC	100 μ L (20 lanes)	Human	AAH22242

Synonyms

TGF-beta; transforming growth factor-beta; TGFB1; TGF- β 1.

Description

The secreted transforming growth factor beta 1 (TGFB1) is a polypeptide member of the cytokine transforming growth factor beta superfamily. TGFB1 plays an important role in controlling cell growth, cell proliferation, cell differentiation and apoptosis. It also acts as a negative autocrine growth factor. TGFB is synthesized in various cells and most cells have specific receptors for TGFB peptide. It is found that TGFB1, TGFB2, and TGFB3 all function through the same receptor signaling systems.

Preparation

The human *TGFB1* gene encoding the C-terminal peptide (amino acids: Asp281-Ser390) was cloned and expressed in *Escherichia coli*. The truncated recombinant protein has an N-terminal 6 \times histidine tag and was purified by immobilized metal ion affinity chromatography (IMAC).

Source

Recombinant histidine-tagged protein, purified from *E. coli*.

Predicted Molecular Mass

~24.1 kDa with the 6 \times histidine tag.

Formulation

Liquid. Supplied in 1 \times SDS Loading Buffer (60 mM Tris-HCl, pH 6.8, 2% SDS, 10% glycerol, 5% 2-mercaptoethanol, 0.002% bromphenol blue).

Storage

The protein is stable at -20 $^{\circ}$ C freezer.

Purity

>95%, determined by SDS-PAGE and stained with Commassie blue.

Applications

Before use, heat the WBC control at 95 $^{\circ}$ C for 5 minutes. Spin down the sample and load 5 μ L per lane onto SDS-PAGE gel.

References

1. Derynck R, et al. (1985). Human transforming growth factor-beta complementary DNA sequence and expression in normal and transformed cells. *Nature* **316** (6030): 701-5.
2. Letterio J, Roberts A (1998). Regulation of immune responses by TGF-beta. *Annu Rev Immunol* **16**: 137-61.
3. Vaughn SP, et al. (2000). Confirmation of the mapping of the Camurati-Englemann locus to 19q13. 2 and refinement to a 3.2-cM region. *Genomics* **66** (1): 119-21.
4. Assoian R, et al. (1983). Transforming growth factor-beta in human platelets. Identification of a major storage site, purification, and characterization. *J Biol Chem* **258** (11): 7155-60.

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