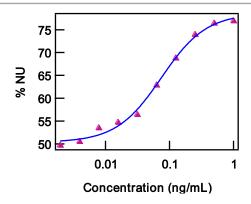


Human TGF beta 3 Recombinant Protein Carrier-Free

Catalog Number: 34-8369

Also known as: Transforming Growth Factor beta 3, TGF-beta3, TGFbeta3 RUO: For Research Use Only. Not for use in diagnostic procedures.



Neutralization of recombinant mouse IL-4-induced proliferation of the CTLL-2 cell line by Human TGF beta3 Recombinant Protein Carrier-Free.

Product Information

Contents: Human TGF beta 3 Recombinant

Protein Carrier-Free

Catalog Number: 34-8369

Concentration: 0.5 mg/mL

Handling Conditions: For best recovery, quick-spin vial prior to opening. Use in

sterile envrioment.

Source: E. coli derived, accesssion number

NM_003239

Molecular Mass: 25.7 kDa

Purity: Greater than 98%, as determined by

SDS-PAGE

Endotoxin: Less than 0.01 ng/\mug cytokine

as determined by the LAL assay **Bioactivity:** The ED₅₀ of this protein, as measured by the neutralization of recombinant mouse IL-4-induced proliferation of CTLL-2 cells, is 0.03-0.125 ng/ml. This corresponds to a specific activity of 3.3×10^7 - 8×10^6 Units/mg.

Formulation: 0.1 M Glycine, pH 3.0, 0.22 μm

filtered

Temperature Limitation: Store at less than or

equal to -70°C.

Batch Code: Refer to vial **Use By:** Refer to vial



Description

Transforming growth factor β 3 (TGF- β 3) is the third member of the transforming growth factor family of cytokines, which also includes TGF- β 1 and - β 2. These cytokines are secreted in precursor form consisting of a bioactive C-terminal domain attached to an N-terminal domain known as latency associated protein (LAP). Cleavage of LAP results in the mature protein, which functions as a disulfide-linked homodimer. As with all members of the family, TGF bet; 3 is highly conserved across species, with mouse and human TGF beta 3 demonstrating 100% sequence homology and cross-species activity.



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The members of this family can be expressed by most cell types and exert pleiotropic effects, which include the suppression of B- and T-cell effector activity, mediation of tissue healing, and suppression of tumor proliferation. The promotion of CD4+CD25+ T-cell expansion is a newly discovered function of the TGF- β cytokines, and indicates an important role in the protection against autoimmunity.

Applications Reported

Recombinant human TGF-β3 is biologically active.

Applications Tested

The ED₅₀ of this protein, as measured by the neutralization of recombinant mouse IL-4-induced proliferation of CTLL-2 cells, is 0.03-0.125 ng/ml. This corresponds to a specific activity of $3.3 \times 10^7 - 8 \times 10^6$ Units/mg.

References

Cox DA and Maurer T. Transforming Growth Factor- β. Clin Immunol. 1997 Apr;83(1)25-30.

Peng Y, Laouar Y, Li MO, Green EA, Flavell RA. TGF-beta regulates in vivo expansion of Foxp3-expressing CD4+CD25+ regulatory T cells responsible for protection against diabetes. Proc Natl Acad Sci U S A. 2004 Mar 30;101(13):4572-7.

Zheng SG, Gray JD, Ohtsuka K, Yamagiwa S, Horwitz DA. Generation ex vivo of TGF-beta-producing regulatory T cells from CD4+CD25- precursors. J Immunol. 2002 Oct 15;169(8)4183-9.

Related Products

14-8348 Human TGF beta 1 Recombinant Protein

14-8368 Human TGF beta 2 Recombinant Protein

16-9823 Anti-Human LAP Functional Grade Purified (VB3A9)

34-8348 Human TGF beta 1 Recombinant Protein Carrier-Free

34-8368 Human TGF beta 2 Recombinant Protein Carrier-Free

88-7344 Human/Mouse TGF beta 1 ELISA Ready-SET-Go!® (To Be Discontinued. Refer to 2nd Generation RSG

Version: cat. 88-8350)

88-7449 Human/ Mouse TGFb1 ELISA Ready-SET-Go! Kit (See replacement item BMS249/3)