



Transforming Growth Factor-Beta 2, His Tag, human recombinant (rHuTGF-b2-His)

Catalog No: 97384

Lot No: XXXXX

Source: *Nicotiana benthamiana*

Synonyms: Transforming growth factor, beta 2, cetermin, Glioblastoma-derived T-cell suppressor factor, polyergin, G-TSF, TGF-beta2, TGF-beta-2, transforming growth factor beta-2, BSC-1 cell growth inhibitor, TGFB-2

Background

TGFB2 is a 27.08 kDa protein having two identical 118 amino acid peptide chains linked by a single disulfide bond. TGFB2 is part of a family of five related cytokines that have an extensive variation 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 stimulate similar biological responses. They are involved in physiological processes as embryogenesis, tissue remodelling and wound healing.

Description

TGF-b2 human recombinant produced in plants is a homodimeric polypeptide chain containing 2 x 118 amino acids and having a total molecular mass of 27.08 kDa. TGFB2 is fused to 6xHis Tag at N-terminus and purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

Lyophilized from a concentrated (1 mg/ml) solution containing 50 mM Tris-HCl pH 7.4.

Solubility

It is recommended to reconstitute the lyophilized TGFB2 in sterile 18 M Ω -cm H₂O not less than 1 μ g/40 μ l, which can then be further diluted to other aqueous solutions.

Stability

Lyophilized TGFB2, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution TGFB2 Human should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Purity

Greater than 97.0% as determined by SDS-PAGE.

Amino Acid Sequence

HHHHHHALDA AYCFRNVQDN CCLRPLYIDF KRDLGWKWIH EPKGYNANFC AGACPYLWSS DTQHRSVLSL YNTINPEASA
SPCCVSQLDLE PLTILYYIGK TPKIEQLSNM IVKSCKCS

Activity

The biological activity of TGFB2 is measured in culture by its ability to inhibit the mink lung epithelial (Mv1Lu) cells proliferation. ED50 <40 ng/ml, corresponding to a specific activity of 25,000 units/mg.

CONTACT US TODAY

BIOMOL GmbH • Kieler Straße 303a • 22525 Hamburg • Germany • info@biomol.de • www.biomol.de

Fon: +49 (0)40-853 260 0 • TOLL FREE IN GERMANY: Fon: 0800-246 66 51



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