

Transforming Growth Factor beta1, human (HuTGF-beta1)

Catalog No: 97215 Lot No: XXXXX

Source: Human platelets

Synonyms: Transforming growth factor beta-1, TGF-beta-1, CED, DPD1, TGFB, TGF-b 1

Background

Transforming growth factor betas (TGF Betas) mediate many cell-cell interactions that occur during embryonic development. Three TGFBetas have been identified in mammals. TGFBeta1, TGFBeta2 and TGFBeta3 are each synthesized as precursor proteins that are very similar in that each is cleaved to yield a 112 amino acid polypeptide that remains associated with the latent portion of the molecule.

Description

TGF-b1 human purified from human platelets is a 25 kDa protein. TGF-b 1 is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered lyophilized powder.

Formulation

TGF-Beta1 protein was lyophilized from a solution containing 5 mM sodium citrate (200 μ l) pH 3.5.

Solubility

It is recommended to reconstitute lyophilized TGF-beta 1 in sterile 100 μ l 5 mM HCl, which can then be further diluted to the desired aliquot to 1 ml of PBS containing 2 mg/ml Albumin.

Stability

Lyophilized TGF-beta 1, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution TGF-beta 1 should be stored at 4°C between 2-7 days and for future use below -18°C. Do not reconstitute with neutral buffers. Do not use glass implements or extensive manipulations. Please avoid freeze-thaw cycles.

Purity

Greater than 97.0%.

Activity

Stimulates the growth of NRK-1 cells in soft agar at concentrations ranging from 0.1 to 5 ng/ml corresponding to a specific activity of 200,000 - 10,000,000 IU/mg. Effective concentration ranges must be experimentally determined. Purified EGF and/or TGF-alpha at concentrations of at least 2 ng/ml must be present for observation of the biological activity.

Usage

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