

Overview

Synonyms	Human TGF- \pm , Human TGF-type I
Description	<p>Transforming Growth Factor-alpha (TGF-\pm), also known as sarcoma growth factor, TGF-type I and ETGF, is a member of the EGF family of cytokines. It is expressed in monocytes, brain cells, keratinocytes and various tumor cells. TGF-\pm signals through EGFR and acts synergistically with TGF-beta to promote the proliferation of a wide range of epidermal and epithelial cells. TGF-\pm is a transforming growth factor that is a ligand for the epidermal growth factor receptor, which activates a signaling pathway for cell proliferation, differentiation and development. This protein may act as either a transmembrane-bound ligand or a soluble ligand. The biological actions of TGF-\pm and EGF are similar. For instance, TGF-\pm and EGF bind to the same receptor. When TGF-\pm binds to EGFR it can initiate multiple cell proliferation events.</p> <p>Recombinant Human TGF-\pm produced in <i>E. coli</i> cells is a single non-glycosylated polypeptide chain containing 50 amino acids. A fully biologically active molecule, rhTGF-\pm has a molecular mass of 5.8 kDa analyzed by reducing SDS-PAGE and is obtained by chromatographic techniques.</p>
Accession No	P02775
Source	<i>E. coli</i>
Biological Activity	ED ₅₀ < 0.2ng/ml, measured by Cell Proliferation Assay using BALB/c 3T3 cells, corresponding to a specific activity of e 5 x 10 ⁶ units/mg.
Sequence	VVSHFNDCPD SHTQFCFHGT CRFLVQEDKP ACVCHSGYVG ARCEHADLLA

Properties

Measured Molecular Weight	5.8 kDa, observed by reducing SDS-PAGE
Purity	> 95% as analyzed by SDS-PAGE
Formulation	Lyophilized after extensive dialysis against PBS.
Reconstitution	Reconstituted in ddH ₂ O or PBS at 100 μ g/ml.
Endotoxin Level	< 0.2 EU/ μ g, determined by LAL method.
Storage	Lyophilized recombinant Human TGF-\pm remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, Human TGF- \pm should be stable up to 1 week at 4°C or up to 3 months at -20°C.
Note	For research use only

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