

Rev06
 Update: Aug,11,2025
DATASHEET

TGF- α , Human

Cat. No.: Z03332

Product Introduction

Species	Human
Protein Construction	TGF- α (Val40-Ala89) Accession # P01135
Purity	> 95% as analyzed by SDS-PAGE
Endotoxin Level	< 0.2 EU/ μ g of protein by gel clotting method
Biological Activity	ED ₅₀ < 0.2 ng/ml, measured by Cell Proliferation Assay using BALB/c 3T3 cells, corresponding to a specific activity of $\geq 5.0 \times 10^6$ units/mg.
Expression System	E. coli
Apparent Molecular Weight	~5.8 kDa, on SDS-PAGE under reducing conditions.
Formulation	Lyophilized after extensive dialysis against PBS.
Reconstitution	It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in ddH ₂ O or PBS up to 100 μ g/ml.
Storage & Stability	Upon receiving, this product remains stable for up to 6 months at lower than -70°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw cycles.

Background

Target Background : Transforming Growth Factor-alpha (TGF- α), 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- α signals through EGFR and acts synergistically with TGF-beta to promote the proliferation of a wide range of epidermal and epithelial cells. TGF- α 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- α and EGF are similar. For instance, TGF- α and EGF bind to the same receptor. When TGF- α binds to EGFR it can initiate multiple cell proliferation events.

Synonyms : Transforming Growth Factor- α ; Sarcoma growth factor; TGF-type I; ETGF; TGF α

For laboratory research use only. Direct human use, including taking orally and injection and clinical use are forbidden.

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