Data Sheet (Cat.No.TMPS-00132)

TargetMol

TGF alpha Protein, Human, Recombinant (CHO)

General Information

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

Protein Construction: Val40-Ala89

Species: Human

Expression Host: CHO Cells

Accession: P01135

Molecular Weight: 8~10 kDa (Reducing conditions)

QC Testing

Biological Activity: ED 50 < 0.4 ng/ml, measured in a cell proliferation assay using 3T3 cells.

Purity: > 95% as determined by SDS-PAGE; > 95% as determined by HPLC

Endotoxin: < 0.2 EU/μg of protein as determined by the LAL method.

Formulation: Lyophilized from a 0.2 μm filtered solution in PBS.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in sterile deionized water. The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

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.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Protransforming Growth Factor-alpha (TGF-alpha), 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. ProTGF-alpha signals through EGFR and acts synergistically with TGF-beta to promote the proliferation of a wide range of epidermal and epithelial cells. It may function as either a membrane-bound ligand or a soluble ligand. Membrane-bound proTGF-alpha plays a role in cell-cell adhesion and juxtacrine stimulation of adjacent cells. The soluble form of the cytokine is released from the membrane-bound form by proteolytic cleavage and acts as a mitogen for cell proliferation.

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