# **Recombinant Mouse TGF-alpha Protein**

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Catalog No.: RP01846 Recombinant

# Sequence Information

**Species** Gene ID **Swiss Prot** Mouse 21802 P48030

# **Tags**

C-hFc

#### **Synonyms**

Protransforming growth factor alpha; Cleaved into: Transforming growth factor alpha; TGF-alpha; EGF-like TGF; ETGF; TGF type 1∏Tgfa

# **Product Information**

**Purification** HEK293 cells ≥ 85% as

determined by SDS-

PAGE.

# Calculated MW Observed MW

32.08 kDa 35-45 kDa

#### Endotoxin

< 0.1 EU/µg of the protein by LAL method.

#### **Formulation**

Lyophilized from a 0.22 µm filtered solution of PBS, pH 7.4.

# Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stablizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

## Contact

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# **Background**

Transforming growth factor alpha (TGF- $\alpha$ ) is a protein that in humans is encoded by the TGFA gene. TGF-alpha is a member of the EGF family of cytokines that are synthesized as transmembrane precursors and are characterized by the presence of one or several EGF structural units in their extracellular domain. Expression of TGFalpha is widespread in tumors and transformed cells. TGF-alpha is also expressed in normal tissues during embryogenesis and in adult tissues, including pituitary, brain, keratinocytes, and macrophages.TGF alpha is a mitogenic polypeptide that is able to bind to the EGF receptor and to act synergistically with TGF beta to promote anchorage-independent cell proliferation in soft agar.

## **Basic Information**

#### Description

Recombinant Mouse TGF-alpha Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Ala38-Ala88) of Mouse TGFalpha/TGFA (Accession #NP 112476.1) fused with a hFc tag at the C-terminus.

### **Bio-Activity**

Measured in a cell proliferation assay using Balb3T3 mouse fibroblast cells. The ED<sub>50</sub> for this effect is 0.43-1.72 ng/mL, corresponding to a specific activity of 15.81×10<sup>5</sup>~2.33×10<sup>6</sup> units/mg.

### **Shipping**

The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

## Storage

Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the

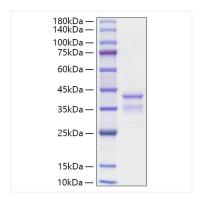
After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.

Avoid repeated freeze/thaw cycles.

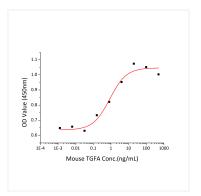
#### **Operational Notes**

For your safety and health, please wear a lab coat and disposable gloves for handling.

# **Validation Data**



Recombinant Mouse TGF-alpha Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.



Recombinant Mouse TGF-alpha/TGFA stimulates cell proliferation assay using Balb3T3 mouse fibroblast cells. The ED $_{50}$  for this effect is 0.43-1.72 ng/mL, corresponding to a specific activity of  $15.81\times10^5\sim2.33\times10^6$  units/mg.