

## Product Description

**Alternate Names:** TGF- $\alpha$ , EGF-like TGF, ETGF, TGFA, TGF type 1      **Accession/Uniprot Number:** P01135

**Description:** Tumor growth factor alpha (TGF- $\alpha$ ) is a member of the epidermal growth factor (EGF) family. TGF- $\alpha$  function is mediated through binding the EGF receptor (EGFR) to activate receptor tyrosine kinase signaling. TGF- $\alpha$  functions as a mitogen to activate epithelial cell proliferation, growth, and differentiation. In the gastric mucosa, TGF- $\alpha$  production inhibits gastric acid secretion and therefore plays a central role in the pathogenesis of the stomach syndrome Ménétrier's disease. TGF- $\alpha$  is also produced in adult macrophages, brain cells, keratinocytes, and is widely expressed in cancer cells.

**Source:** Genetically modified *E.coli*.

**Predicted MW:** Monomer, 5.6 kDa (50 amino acids)

**AA Sequence:** VVSHFNDCPD SHTQFCFHGT CRFLVQEDKP ACVCHSGYVG ARCEHADLLA

**Formulation:** Lyophilized from a sterile (0.2 micron) filtered aqueous solution containing 0.1% Trifluoroacetic Acid (TFA)

## Product Specifications

Specification	Method of Determination	Acceptance Criteria	Result
<b>Purity</b>	Reducing and Non-reducing SDS-PAGE	$\geq 95\%$	> 95%
<b>Endotoxin</b>	Kinetic LAL (50% confidence)	$\leq 1$ EUs/ug	< 0.05 EUs/ug
<b>Biological Activity</b>	BALB/c 3T3 proliferation	ED50 $\leq 2$ ng/mL ( $\geq 5 \times 10^5$ units/mg)	ED50 = 0.395 ng/mL ( $2.5 \times 10^6$ units/mg)

## Product Preparation and Storage

**Country of Origin:** USA      **Shipping:** Room temperature      **Storage Prior to Reconstitution:** -20°C

**Reconstitution:** Sterile water at 0.1 mg/mL      **Date of Recon.:** \_\_\_\_\_ **Initials:** \_\_\_\_\_

Centrifuge vial before opening. Suspend the product by gently pipetting the above recommended solution down the sides of the vial. DO NOT VORTEX. Allow several minutes for complete reconstitution. For prolonged storage, dilute to working aliquots in a 0.1% BSA solution, store at -80°C and avoid repeat freeze thaws.

**Expiration Date:** \_\_\_\_\_ **Date Received:** \_\_\_\_\_

12 months from date of receipt when stored at -20°C to -80°C as supplied.  
1 month when stored at 4°C after reconstituting as directed.  
3 months when stored at -20°C to -80°C after reconstituting as directed.

**THIS PRODUCT IS FOR RESEARCH USE ONLY AND IS NOT FOR USE IN HUMANS!**

X *Olivia Schneider, PhD 12-5-17*

Quality Assurance