



# Product Data Sheet

Recombinant Human TGF- $\alpha$

Catalog Number: 100-209

## Product Description

**Alternate Names:** TGF-alpha, EGF-like TGF, ETGF, TGFA, TGF type 1

**Accession 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 (with 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\*

\*Lot-specific values for the following specifications are supplied with each production lot on its corresponding COA.

Specification	Method of Determination	Acceptance Criteria
Purity	Reducing and Non-Reducing SDS-PAGE	$\geq 95\%$
Endotoxin	Kinetic LAL (50% confidence)	$\leq 1$ EUs/ $\mu$ g
Biological Activity	3T3 cell proliferation	ED50 $\leq 2$ ng/mL ( $\geq 5 \times 10^5$ units/mg)

## Product Preparation and Storage

**Country of Origin:** USA

**Shipping:** Room temperature

**Storage Prior to Reconstitution:** -20°C

**Product Reconstitution:** Sterile water at 0.1 mg/mL

**Instructions:** 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:

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!**