

## Recombinant Human TGF $\alpha$ / Transforming Growth Factor alpha, Animal Free & Carrier Free

Cat #: C-CYP291

Size: 20 $\mu$ g, 100 $\mu$ g, 500 $\mu$ g, 1mg

Shipping: Blue Ice

### Product Overview

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 TGF-alpha 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.

### Product Information

**Source:** *Escherichia Coli*.

**Purity:** >98% as determined by SDS-PAGE. Ni-NTA chromatography.

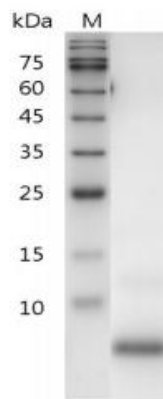
**Biological Activity:** Measure by its ability to induce 3T3 cells proliferation. The ED50 for this effect is <0.2 ng/mL. The specific activity of recombinant human TGF alpha is > 5 x10<sup>6</sup> IU/mg.

**Endotoxin:** <0.1 EU per 1  $\mu$ g of the protein by the LAL method.

**Amino acid sequence:**

MVVSHFNDCPDSHTQFCFHGTCRFLVQEDKPACVCHSGYVGARCEHADLLA with polyhistidine tag at the C-terminus.

**Formulation:** Lyophilized from a sterile filtered aqueous solution in 1xPBS, pH 8.0.



SDS-PAGE analysis of recombinant human TGF alpha

## Usage Method

1. Before opening, it is recommended to centrifuge at 3000-3500 rpm for 5 minutes.
2. Reconstitute to a concentration of 0.1-1.0 mg/mL in sterile distilled H<sub>2</sub>O. Allow the solution to sit at room temperature for at least 20 minutes to ensure complete dissolution. Avoid vigorous vortexing.
3. The reconstituted solution can be stored at 2-8°C for up to 1 week.
4. For long-term storage, it is recommended to further dilute the solution with a carrier protein (such as 0.1% BSA, 10% FBS, or 5% HSA) to a concentration of no less than 10 µg/mL and aliquot for storage at -20°C to -80°C for 3 to 6 months. If serum-free experiments are required, a 5% trehalose solution can be used as a carrier instead. Avoid repeated freeze-thaw cycles.

## Storage

Physical Appearance	Storage	Stability
Lyophilized powder	-20°C to -80°C	1 year
Reconstitution (initial)	2°C to 8°C	Less than 1 week
Reconstitution (after dilution)	-20°C to -80°C	3 to 6 months

## Note

The reagent is only used in the field of scientific research, not suitable for clinical diagnosis or other purposes.