

# Active Recombinant Human TGFA Protein

**Cat. No.** TGFA-244H    **Lot. No.** (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Recombinant Human TGFA Protein without tag was expressed in E. coli.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Description</b>      | 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. |
| <b>Bio-activity</b>     | 3T3 cell proliferation, ED50 $\leq$ 2 ng/mL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Molecular Mass</b>   | Monomer, 5.6 kDa (with 50 amino acids)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>AA Sequence</b>      | VVSHFNDPCDSHTQFCFHGTCRFLVQEDKPACVCHSGYVGARCEHADLLA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Endotoxin</b>        | $\leq$ 1 EUs/ $\mu$ g, Kinetic LAL (50% confidence)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Purity</b>           | $\geq$ 95%, Reducing and Non-Reducing SDS PAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

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|                       |                                                                                                                                                                                                                                                                                                                                       |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Stability</b>      | 12 months from date of receipt when stored at -20 to -80 centigrade as supplied.<br>1 month when stored at 4 centigrade after reconstituting as directed.<br>3 months when stored at -20 to -80 centigrade after reconstituting as directed.                                                                                          |
| <b>Storage</b>        | Storage Prior to Reconstitution: -20 centigrade                                                                                                                                                                                                                                                                                       |
| <b>Storage Buffer</b> | Lyophilized from a sterile (0.2 micron) filtered aqueous solution containing 0.1% Trifluoroacetic Acid (TFA)                                                                                                                                                                                                                          |
| <b>Reconstitution</b> | Sterile water at 0.1 mg/mL                                                                                                                                                                                                                                                                                                            |
| <b>Shipping</b>       | Room temperature                                                                                                                                                                                                                                                                                                                      |
| <b>Instructions</b>   | 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 centigrade and avoid repeat freeze thaws. |

## GENE INFORMATION

|                        |                                                                                                |
|------------------------|------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | TGFA transforming growth factor, alpha [ Homo sapiens (human) ]                                |
| <b>Official Symbol</b> | TGFA                                                                                           |
| <b>Synonyms</b>        | TGFA; transforming growth factor, alpha; protransforming growth factor alpha; TGF-alpha; TFGA; |
| <b>Gene ID</b>         | 7039                                                                                           |
| <b>mRNA Refseq</b>     | NM_001099691                                                                                   |

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|----------------|--------------|
| Protein Refseq | NP_001093161 |
| MIM            | 190170       |
| UniProt ID     | P01135       |

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