

**TGF $\alpha$ /ETGF/TGFA, Human, Recombinant**

Cat. No. : PCK283

**General Information**

|                        |                                                                                                                                                                                         |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Synonyms</b>        | Sarcoma growth factor;TGF-type I;ETGF;TGFA                                                                                                                                              |
| <b>Species</b>         | Human                                                                                                                                                                                   |
| <b>Expression host</b> | E.coli                                                                                                                                                                                  |
| <b>Sequence</b>        | MVVSHFNDPCDSHTQFCFHGTCRFLVQEDKPACVCHSGYVGARCEHADLLA with polyhistidine tag at the C-terminus.                                                                                           |
| <b>Accession</b>       | P01135.1                                                                                                                                                                                |
| <b>Tag</b>             | His-tag at the C-terminus                                                                                                                                                               |
| <b>Mol mass</b>        | 6.49 kDa                                                                                                                                                                                |
| <b>Expiration date</b> | 12 months                                                                                                                                                                               |
| <b>Bio activity</b>    | 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 × 10 <sup>6</sup> IU/mg. |

**Product feature**

|                                         |                                                                                                                                                                                                                                                                                                                            |
|-----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Purity</b>                           | > 98% as determined by SDS-PAGE. Ni-NTA chromatography.                                                                                                                                                                                                                                                                    |
| <b>Endotoxin (EU/<math>\mu</math>g)</b> | < 0.1                                                                                                                                                                                                                                                                                                                      |
| <b>Storage</b>                          | Lyophilized protein should be stored at -5~-20°C for 1 year. Upon reconstitution, store at 2-8°C for up to 1 week. Further dilute in a buffer containing a carrier protein or stabilizer (e.g. 0.1% BSA, 10% FBS, 5% HSA or 5% trehalose solution), protein aliquots should be stored at -5~-20°C or -80°C for 3-6 months. |
| <b>Shipping</b>                         | Ice bag                                                                                                                                                                                                                                                                                                                    |
| <b>Formulation</b>                      | The protein was lyophilized from a 0.2 $\mu$ m filtered solution containing 20 mM sodium citrate and 0.2 M NaCl, pH 4.5.                                                                                                                                                                                                   |
| <b>Reconstitution</b>                   | It is recommended to reconstitute the lyophilized protein in sterile water to a concentration not less than 100 $\mu$ g/mL. Do Not Vortex! Vigorous shaking may impair the biological activity of the protein.                                                                                                             |

**Background**

Transforming Growth Factors alpha (TGF- $\alpha$ ) is a 5.68 kDa member of the epidermal Growth Factors with 51 amino acid residues. TGF- $\alpha$  is mainly expressed from brain, skin, epithelial cell (pancreatic endocrine cells, urothelial cells, oligodendrocyte precursor cells, etc.). TGF- $\alpha$  is a regulator of cell proliferation and differentiation via bind to the EGFR and to act synergistically with TGF  $\beta$ . TGF- $\alpha$  also associates with myriad forms of cancer.

### SDS-PAGE

