## Human TGF-alpha, Tag Free Protein HA211318



Product name: Human TGF-alpha, Tag Free

Species reactivity: Human

**Bio-Activity:** Testing in progress.

**Protein construction** 

description:

A DNA sequence encoding the human TGF-alpha protein (P01135-1) (Val 40-Ala 89) was expressed with tag

free.

Background: Transforming growth factor alpha (TGF-α) is a protein that in humans is encoded by the TGFA gene. As a

member of the epidermal growth factor (EGF) family,  $TGF-\alpha$  is a mitogenic polypeptide. The protein becomes activated when binding to receptors capable of protein kinase activity for cellular signaling.  $TGF-\alpha$  is a transforming growth factor that is a ligand for the epidermal growth factor receptor, which activates a signaling pathway for cell proliferation, differentiation and development. This protein may act as either a transmembrane-bound ligand or a soluble ligand. This gene has been associated with many types of cancers, and it may also be involved in some cases of cleft lip/palate.  $TGF-\alpha$  can be produced in macrophages, brain cells, and keratinocytes.  $TGF-\alpha$  induces epithelial development. Considering that  $TGF-\alpha$  is a member of the EGF family, the biological actions of  $TGF-\alpha$  and EGF are similar. For instance,  $TGF-\alpha$  and EGF bind to the same receptor. When  $TGF-\alpha$  binds to EGFR it can initiate multiple cell proliferation events. Cell proliferation events that involve

TGF- $\alpha$  bound to EGFR include wound healing and embryogenesis.

**Purity:** >90% as determined by SDS-PAGE.

**Endotoxin:** Less than 1.0 EU per µg by the LAL method.

Fragment region: TGF-alpha (40-89)

Source: HEK293

Accession: P01135-1

Predicted molecular mass: 6.3 kD

Formulation: Lyophilized from a 0.2 µm filtered solution of PBS, pH7.4, 5% Trehalose, 5% mannitol.

**Reconstitution:** Reconstitute at 250 µg/ml in sterile water.

Storage: Please avoid repeated freeze-thaw cycles. Samples are stable for up to twelve months from date of receipt at -

 $20^{\circ}$ C to -80  $^{\circ}$ C It is recommended that aliquot the reconstituted solution to minimize freeze-thaw cycles.

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## **Images**

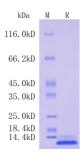


Fig1: Protein on SDS-PAGE under reducing (R) condition.

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".