

## TGF alpha/TGFA Protein, Human

Cat. No.:	HY-P7411
Synonyms:	rHuTGF- $\alpha$ ; ETGF; TGF-type I
Species:	Human
Source:	E. coli
Accession:	P01135 (V40-A89)
Gene ID:	7039
Molecular Weight:	Approximately 5.8 kDa

### PROPERTIES

AA Sequence	V V S H F N D C P D    S H T Q F C F H G T    C R F L V Q E D K P    A C V C H S G Y V G A R C E H A D L L A
Biological Activity	The ED <sub>50</sub> is <0.2 ng/mL as measured by BALB/c 3T3 cells, corresponding to a specific activity of >5 × 10 <sup>6</sup> units/mg.
Appearance	Lyophilized powder.
Formulation	Lyophilized after extensive dialysis against PBS.
Endotoxin Level	<0.2 EU/ $\mu$ g, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 $\mu$ g/mL in ddH <sub>2</sub> O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

Background	Transforming growth factor alpha (TGF- $\alpha$ ) is a principal molecule in the normal and neoplastic development of the mammary gland. Binding of TGF- $\alpha$ to the epidermal growth factor receptor (EGFR), activates the EGFRs' endogenous tyrosine kinase activity and stimulates growth of the epithelium in the virgin and pregnant mouse mammary gland. TGF- $\alpha$ expression can be detected in breast cancer cells in vivo and in vitro and overexpression can elicit partial transformation or immortalized human and rodent mammary epithelial cells <sup>[1][2]</sup> .
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### REFERENCES

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[1]. Nilsson O, et al. Expression of transforming growth factor alpha and its receptor in human neuroendocrine tumours. *Int J Cancer*. 1995 Mar 3;60(5):645-51.

[2]. Lupia E, et al. Thrombopoietin as biomarker and mediator of cardiovascular damage in critical diseases. *Mediators Inflamm*. 2012;2012:390892.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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