

## TGF $\alpha$ (hBA-50): sc-4887

### BACKGROUND

Transforming growth factor  $\alpha$  (TGF $\alpha$ ) is an acid- and heat-stable 50 amino acid protein originally found in rodents and humans. TGF $\alpha$  is 33% homologous at the amino acid level to epidermal growth factor (EGF). TGF $\alpha$  binds to the EGF receptor, mediates tyrosine phosphorylation of the receptor and promotes anchorage-independent growth of normal rat fibroblasts in soft agar in the presence of transforming growth factor  $\beta$ . TGF $\alpha$  is secreted by a variety of transformed cells and tumors, embryonic cells and some normal adult cells. TGF $\alpha$  bioactivity has been found in the urine of cancer patients. It has been suggested that it may act as an autocrine growth factor for the induction or maintenance of malignancy.

### REFERENCES

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8. Takagi, T., et al. 2007. Involvement of TGF $\alpha$  in the photoperiodic regulation of reproduction in birds. *Endocrinology* 148: 2788-2792.
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### CHROMOSOMAL LOCATION

Genetic locus: TGFA (human) mapping to 2p13; Tgfa (mouse) mapping to 6 D1.

### STORAGE

Store at -20° C; stable for one year from the date of shipment.

### RESEARCH USE

For research use only, not for use in diagnostic procedures.

### SOURCE

TGF $\alpha$  (hBA-50) is produced in *E. coli* as 33 kDa biologically active, GST-tagged fusion protein corresponding to 50 amino acids of full length mature TGF $\alpha$  of human origin.

### PRODUCT

TGF $\alpha$  (hBA-50) is purified from bacterial lysates (>98%); supplied as 100  $\mu$ g purified protein.

### BIOLOGICAL ACTIVITY

TGF $\alpha$  (hBA-50) is biologically active as determined by the dose-dependent stimulation of thymidine uptake by BALB/c 3T3 cells is < 0.7 ng/ml.

Specific Activity: > 1.4 x 10<sup>6</sup> units/mg.

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.