

TGF α (P/T1): sc-57447

BACKGROUND

Transforming growth factor α (TGF α) is an acid- and heat-stable 50 amino acid protein originally found in rodents and humans. TGF α is 33% homologous at the amino acid level to epidermal growth factor (EGF). TGF α 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 β . TGF α is secreted by a variety of transformed cells and tumors, embryonic cells and some normal adult cells. TGF α 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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5. Samsouondar, J., et al. 1986. Alpha transforming growth factor secreted by untransformed bovine anterior pituitary cells in culture. I. Purification from conditioned medium. *J. Biol. Chem.* 261: 14408-14418.
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8. Takagi, T., et al. 2007. Involvement of TGF α in the photoperiodic regulation of reproduction in birds. *Endocrinology* 148: 2788-2792.
9. Lee, T.Y., et al. 2007. Expression of ErbB receptor proteins and TGF α during diethylnitrosamine-induced hepatocarcinogenesis in the rat liver. *Korean J. Hepatol.* 13: 70-80.

CHROMOSOMAL LOCATION

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

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

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

SOURCE

TGF α (P/T1) is a mouse monoclonal antibody raised against amino acids 32-40 of TGF α of human origin.

PRODUCT

Each vial contains 100 μ g IgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

TGF α (P/T1) is recommended for detection of TGF α of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for TGF α siRNA (h): sc-39423.

Molecular Weight of TGF α precursor: 13-30 kDa.

Molecular Weight of mature TGF α : 6 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use goat anti-mouse IgG-FITC: sc-2010 (dilution range: 1:100-1:400) or goat anti-mouse IgG-TR: sc-2781 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 3) Immunohistochemistry: use ImmunoCruz™: sc-2050 or ABC: sc-2017 mouse IgG Staining Systems.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.