**BACKGROUND**

Transforming growth factor-α (TGFα) is an acid- and heat-stable 50 amino acid protein originally found in rodents and humans. TGFα is 33% homologous at the amino acid level to epidermal growth factor (EGF). TGFα 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. TGFα is secreted by a variety of transformed cells and tumors, embryonic cells and some normal adult cells. TGFα 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**


**CHROMOSOMAL LOCATION**

Genetic locus: TGFA (human) mapping to 2p13.3, BTC (human) mapping to 4q13.3; Tgfα (mouse) mapping to 6 D1, Btc (mouse) mapping to 5 E2.

**SOURCE**

TGFα (D-6) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 63-89 at the C-terminus of TGFα of human origin.

**PRODUCT**

Each vial contains 200 µg IgG3, kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

TGFα (D-6) is available conjugated to agarose (sc-374433 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-374433 HRP), 200 µg/ml, for WB, HRP and ELISA; to either phycoerythrin (sc-374433 PE), fluorescein (sc-374433 FITC), Alexa Fluor® 488 (sc-374433 AF488), Alexa Fluor® 546 (sc-374433 AF546), Alexa Fluor® 594 (sc-374433 AF594) or Alexa Fluor® 647 (sc-374433 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM, and to either Alexa Fluor® 680 (sc-374433 AF680) or Alexa Fluor® 790 (sc-374433 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-374433 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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**APPLICATIONS**

TGFα (D-6) is recommended for detection of presursor and mature TGFα and BTC of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

TGFα (D-6) is also recommended for detection of presursor and mature TGFα and BTC in additional species, including equine, canine, bovine and porcine.

Molecular Weight of TGFα precursor: 13-30 kDa.

Molecular Weight of mature TGFα: 6 kDa.

Molecular Weight of BTC: 18-32 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201, human TGFα transfected 293T whole cell lysate or SW480 cell lysate: sc-2219.

**DATA**

**SELECT PRODUCT CITATIONS**


**STORAGE**

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