**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; Tfga (mouse) mapping to 5 E1.

**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 IgG1 in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.

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).

**STORAGE**

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

**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**

TGFα (D-6): sc-374433. Western blot analysis of TGFα expression in non-transfected [A] and human TGFα transfected [B] 293T whole cell lysates.

TGFα (D-6): sc-374433. Immunoperoxidase staining of formalin fixed, paraffin-embedded human heart muscle tissue showing cytoplasmic staining of myocytes [A]. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic staining of cells in tubules [B].

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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