SANTA CRUZ BIOTECHNOLOGY, INC.

TROY (E-19): sc-13711

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The tumor necrosis factor receptor (TNFR) superfamily represents a growing family of type I transmembrane glycoproteins that are involved in various cellular functions, including proliferation, differentiation and programmed cell death. These proteins share homology for cysteine-rich repeats in the extracellular ligand binding domain and an intracellular death domain. Members of the TNFR superfamily transmit signals through protein-protein interactions, and these signals can lead to the activation of either the caspase and Jun kinase pathways, which promote cell death, or the NFκB pathway, which results in cell survival. One member of the TNFR superfamily, TROY (also designated TAJ), exists as several isoforms, which vary in function. Full length TROY contains a cytoplasmic tail, which recruits tumor necrosis factor receptor-associated factor 2 (TRAF2). The interaction between TROY and TRAF2 promotes cell survival through the NFκB signaling pathway. TROY also exhibits significant homology to EDAR, a receptor that determines hair follicle fate, and like EDAR, TROY is expressed in the epithelium. Specifically, full length TROY mRNA is detected in the epithelium of mouse brain, embryo, heart, lung and liver. One truncated version of TROY, designated TNFRSF19, contains a shortened cytoplasmic tail, which prevents TNFRSF19 from activating the NFκB signal transduction pathway.

CHROMOSOMAL LOCATION

Genetic locus: TNFRSF19 (human) mapping to 13q12.12; Tnfrsf19 (mouse) mapping to 14 D1.

SOURCE

TROY (E-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of TROY of mouse origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-13711 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TROY (E-19) is recommended for detection of TROY of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for TROY siRNA (h): sc-40247, TROY siRNA (m): sc-40248, TROY shRNA Plasmid (h): sc-40247-SH, TROY shRNA Plasmid (m): sc-40248-SH, TROY shRNA (h) Lentiviral Particles: sc-40247-V and TROY shRNA (m) Lentiviral Particles: sc-40248-V.

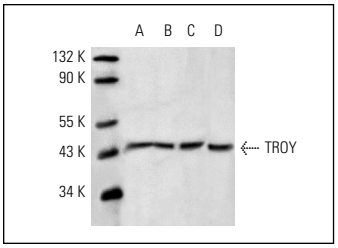
Molecular Weight of TROY: 45 kDa.

Positive Controls: LNCaP cell lysate: sc-2231, A-431 whole cell lysate: sc-2201 or 3T3-L1 cell lysate: sc-2243.

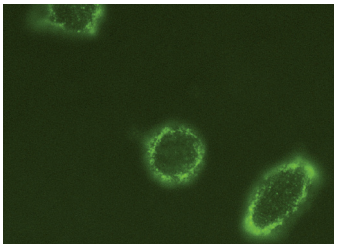
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



TROY (E-19): sc-13711. Western blot analysis of TROY expression in LNCaP (**A**), A-431 (**B**) and 3T3-L1 (**C**) whole cell lysates and mouse brain extract (**D**).



TROY (E-19): sc-13711. Immunofluorescence staining of methanol-fixed A-431 cells showing membrane staining.

SELECT PRODUCT CITATIONS

1. Satoh, J., et al. 2007. TROY and LINGO-1 expression in astrocytes and macrophages/microglia in multiple sclerosis lesions. Neuropathol. Appl. Neurobiol. 33: 99-107.
2. García-Escudero, V., et al. 2012. Patient-derived olfactory mucosa cells but not lung or skin fibroblasts mediate axonal regeneration of retinal ganglion neurons. Neurosci. Lett. 509: 27-32.
3. VanGuilder Starkey, H.D., et al. 2013. Increased hippocampal NgR1 signaling machinery in aged rats with deficits of spatial cognition. Eur. J. Neurosci. 37: 1643-1658.

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.