

# TROY (M-20): sc-13714



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 NF $\kappa$ B 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 NF $\kappa$ B 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 NF $\kappa$ B signal transduction pathway.

## REFERENCES

1. Gruss, H.J. 1996. Molecular, structural, and biological characteristics of the tumor necrosis factor ligand superfamily. *Intl. J. Clin. Lab. Res.* 26: 143-159.
2. Gruss, H.J., et al. 1996. Structural and biological features of the TNF receptor and TNF ligand superfamilies: interactive signals in the pathobiology of Hodgkin's disease. *Ann. Oncol.* 7: 19-26.

## CHROMOSOMAL LOCATION

Genetic locus: *Tnfrsf19* (mouse) mapping to 14 D1.

## SOURCE

TROY (M-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of TROY of mouse origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-13714 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## 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.

## APPLICATIONS

TROY (M-20) is recommended for detection of TROY of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

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

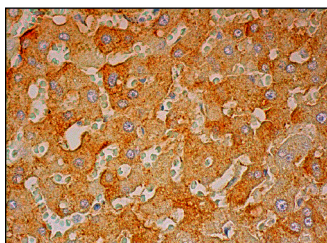
Molecular Weight of TROY: 45 kDa.

Positive Controls: 3T3-L1 cell lysate: sc-2243 or mouse brain extract: sc-2253.

## 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) 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. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

## DATA



TROY (M-20): sc-13714. Immunoperoxidase staining of formalin fixed, paraffin-embedded human liver tissue showing membrane and cytoplasmic staining of hepatocytes.

## SELECT PRODUCT CITATIONS

1. Akins, M.R., et al. 2007. Cadherin expression in the developing mouse olfactory system. *J. Comp. Neurol.* 501: 483-497.

**MONOS**  
Satisfaction  
Guaranteed

Try **TROY (D-4): sc-398526**, our highly recommended monoclonal alternative to TROY (M-20).