

# TRC8 (H-9): sc-390347

## BACKGROUND

TRC8 (translocation in renal carcinoma on chromosome 8), also known as RNF139 (ring finger protein 139), RCA1 or HRCA1 (hereditary renal cancer associated 1), is a multi-pass membrane protein that is predominantly expressed in testis, adrenal gland and placenta and is expressed at lower levels in liver, skeletal muscle, pancreas, kidney, brain, heart and lung. Localizing to the endoplasmic reticulum (ER), TRC8 contains ten transmembrane segments, a sterol-sensing domain and one RING-type zinc finger and may function as a ubiquitin ligase and signaling receptor. TRC8 physically interacts with VHL (Von Hippel Lindau disease tumor suppressor), and the inhibition of either of these proteins leads to the same ventral midline defect. Disruption of the TRC8 gene, caused by the 3;8 chromosomal translocation, is associated with hereditary renal cell carcinoma (RCC), suggesting that TRC8 is a potential tumor suppressor for RCC. Further supporting its role as a tumor suppressor, TRC8 mediates the induction of G<sub>2</sub>/M phase arrest, increased apoptosis and decreased DNA synthesis.

## CHROMOSOMAL LOCATION

Genetic locus: RNF139 (human) mapping to 8q24.13; Rnf139 (mouse) mapping to 15 D1.

## SOURCE

TRC8 (H-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 106-124 within an internal region of TRC8 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

TRC8 (H-9) is available conjugated to agarose (sc-390347 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390347 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390347 PE), fluorescein (sc-390347 FITC), Alexa Fluor® 488 (sc-390347 AF488), Alexa Fluor® 546 (sc-390347 AF546), Alexa Fluor® 594 (sc-390347 AF594) or Alexa Fluor® 647 (sc-390347 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390347 AF680) or Alexa Fluor® 790 (sc-390347 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-390347 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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## STORAGE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

## APPLICATIONS

TRC8 (H-9) is recommended for detection of TRC8 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

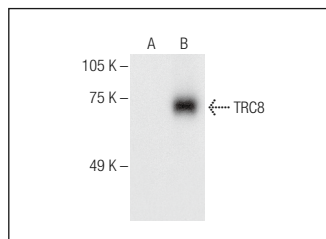
TRC8 (H-9) is also recommended for detection of TRC8 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for TRC8 siRNA (h): sc-63155, TRC8 siRNA (m): sc-63156, TRC8 shRNA Plasmid (h): sc-63155-SH, TRC8 shRNA Plasmid (m): sc-63156-SH, TRC8 shRNA (h) Lentiviral Particles: sc-63155-V and TRC8 shRNA (m) Lentiviral Particles: sc-63156-V.

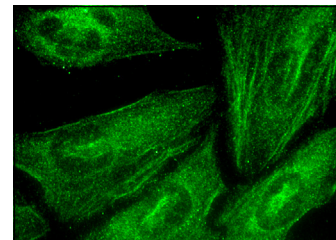
Molecular Weight of TRC8: 60 kDa.

Positive Controls: TRC8 (h): 293T Lysate: sc-116907.

## DATA



TRC8 (H-9): sc-390347. Western blot analysis of TRC8 expression in non-transfected: sc-117752 (A) and human TRC8 transfected: sc-116907 (B) 293T whole cell lysates.



TRC8 (H-9): sc-390347. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane and cytoplasmic localization.

## SELECT PRODUCT CITATIONS

1. Zhang, Y., et al. 2019. Insulin-induced gene 1 (INSIG1) inhibits HIV-1 production by degrading Gag via activity of the ubiquitin ligase TRC8. *J. Biol. Chem.* 294: 2046-2059.
2. Muta, Y., et al. 2023. Enhanced SREBP2-driven cholesterol biosynthesis by PKC $\lambda/\zeta$  deficiency in intestinal epithelial cells promotes aggressive serrated tumorigenesis. *Nat. Commun.* 14: 8075.
3. Gao, G.B., et al. 2024. LncRNA RGMB-AS1 inhibits HMOX1 ubiquitination and NAA10 activation to induce ferroptosis in non-small cell lung cancer. *Cancer Lett.* 590: 216826.

## RESEARCH USE

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