

## TRC8 (H-89): sc-68373

### 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.

### REFERENCES

1. Boldog, F.L., et al. 1993. Positional cloning of the hereditary renal carcinoma 3;8 chromosome translocation breakpoint. *Proc. Natl. Acad. Sci. USA* 90: 8509-8513.
2. Gemmill, R.M., et al. 1998. The hereditary renal cell carcinoma 3;8 translocation fuses FHIT to a patched-related gene, TRC8. *Proc. Natl. Acad. Sci. USA* 95: 9572-9577.
3. Lorick, K.L., et al. 1999. RING fingers mediate ubiquitin-conjugating enzyme (E2)-dependent ubiquitination. *Proc. Natl. Acad. Sci. USA* 96: 11364-11369.
4. Gemmill, R.M., et al. 2002. The TRC8 hereditary kidney cancer gene suppresses growth and functions with VHL in a common pathway. *Oncogene* 21: 3507-3516.
5. Charytoniuk, D., et al. 2002. Sonic hedgehog signalling in the developing and adult brain. *J. Physiol.* 96: 9-16.
6. Gemmill, R.M., et al. 2005. Growth suppression induced by the TRC8 hereditary kidney cancer gene is dependent upon JAB1/CSN5. *Oncogene* 24: 3503-3511.

### CHROMOSOMAL LOCATION

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

### SOURCE

TRC8 (H-89) is a rabbit polyclonal antibody raised against amino acids 576-664 mapping at the C-terminus of TRC8 of human origin.

### PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-68373 X, 200 µg/0.1 ml.

### APPLICATIONS

TRC8 (H-89) is recommended for detection of translocation in renal carcinoma on chromosome 8 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).

TRC8 (H-89) is also recommended for detection of translocation in renal carcinoma on chromosome 8 in additional species, including equine, canine, bovine and porcine.

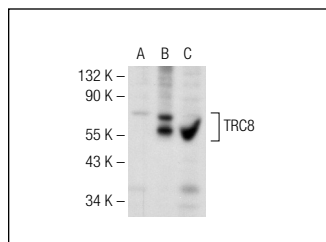
Suitable for use as control antibody for TRC8 siRNA (h): sc-63155, TRC8 siRNA (m): sc-63156, TRC8 shRNA Plasmid (h): sc-63155-SH, TRC8 shRNA Plasmid (m): sc-63156-SH, TRC8 shRNA (h) Lentiviral Particles: sc-63155-V and TRC8 shRNA (m) Lentiviral Particles: sc-63156-V.

TRC8 (H-89) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of TRC8: 76 kDa.

Positive Controls: TRC8 (h): 293T Lysate: sc-116907 or Hep G2 cell lysate: sc-2227.

### DATA



TRC8 (H-89): sc-68373. Western blot analysis of TRC8 expression in non-transfected 293T: sc-117752 (A), human TRC8 transfected 293T: sc-116907 (B) and Hep G2 (C) whole cell lysates.

### 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.

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Try **TRC8 (H-9): sc-390347** or **TRC8 (E-12): sc-376358**, our highly recommended monoclonal alternatives to TRC8 (H-89).