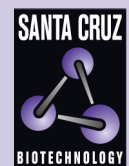


TRC8 (E-12): sc-376358



The Power to Question

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 G₂/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.

CHROMOSOMAL LOCATION

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

SOURCE

TRC8 (E-12) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 97-133 within an internal region of TRC8 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain 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-376358 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-376358 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

TRC8 (E-12) 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), 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 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 (E-12) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

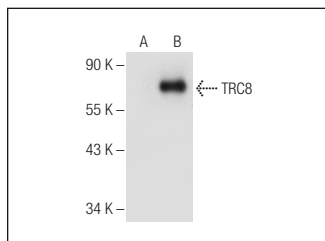
Molecular Weight of TRC8: 60 kDa.

Positive Controls: TRC8 (h): 293T Lysate: sc-116907, Hep G2 cell lysate: sc-2227 or F9 cell lysate: sc-2245.

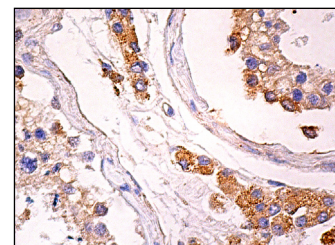
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



TRC8 (E-12): sc-376358. Western blot analysis of TRC8 expression in non-transfected: sc-117752 (A) and human TRC8 transfected: sc-116907 (B) 293T whole cell lysates.



TRC8 (E-12): sc-376358. Immunoperoxidase staining of formalin fixed, paraffin-embedded human testis tissue showing cytoplasmic staining of cells in seminiferous ducts and Leydig cells.

RESEARCH USE

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