SANTA CRUZ BIOTECHNOLOGY, INC.

TRIP13 (A-7): sc-514285

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Thyroid hormone receptors (TRs) are transcription factors that regulate the expression of specific genes in a hormone-dependent manner. TRIP13 (thyroid hormone receptor interactor 13), also called 16E1BP, is a transcription factor that interacts with the ligand binding domain of the thyroid receptor (TR) as well as a variety of target genes including human papilloma virus type 16 (HPV16) E1. Unlike most TRIP proteins which function only in the presence of hormones, TRIP13 does not require the presence of thyroid hormone to interact with TR. The association of TRIP13 with (HPV16) E1 suggests that TRIP13 may have tumor suppressor gene function. TRIP13 is a 432 amino acid protein with two different isoforms produced by alternative splicing.

REFERENCES

1. Lee, J.W., et al. 1995. Two classes of proteins dependent on either the presence or absence of thyroid hormone for interaction with the thyroid hormone receptor. Mol. Endocrinol. 9: 243-254.
2. Yasugi, T., et al. 1997. Two classes of human papillomavirus type 16 E1 mutants suggest pleiotropic conformational constraints affecting E1 multimerization, E2 interaction, and interaction with cellular proteins. J. Virol. 71: 5942-5951.
3. Arias-Pulido, H., et al. 2002. Mapping common deleted regions on 5p15 in cervical carcinoma and their occurrence in precancerous lesions. Mol. Cancer 1: 3.
4. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 604507. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/

CHROMOSOMAL LOCATION

Genetic locus: TRIP13 (human) mapping to 5p15.33.

SOURCE

TRIP13 (A-7) is a mouse monoclonal antibody raised against amino acids 1-180 mapping at the N-terminus of TRIP13 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ZHX1 (E-6) is available conjugated to agarose (sc-514284 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-514284 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514284 PE), fluorescein (sc-514284 FITC), Alexa Fluor® 488 (sc-514284 AF488), Alexa Fluor® 546 (sc-514284 AF546), Alexa Fluor® 594 (sc-514284 AF594) or Alexa Fluor® 647 (sc-514284 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514284 AF680) or Alexa Fluor® 790 (sc-514284 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

RESEARCH USE

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

APPLICATIONS

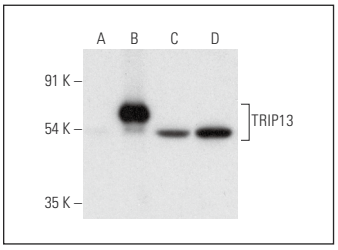
TRIP13 (A-7) is recommended for detection of TRIP13 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for TRIP13 siRNA (h): sc-91672, TRIP13 shRNA Plasmid (h): sc-91672-SH and TRIP13 shRNA (h) Lentiviral Particles: sc-91672-V.

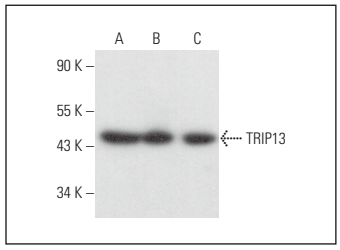
Molecular Weight of TRIP13: 49 kDa.

Positive Controls: TRIP13 (h): 293T Lysate: sc-369956, HeLa whole cell lysate: sc-2200 or Jurkat whole cell lysate: sc-2204.

DATA



TRIP13 (A-7): sc-514285. Western blot analysis of TRIP13 expression in non-transfected 293T: sc-117752 (**A**), human TRIP13 transfected 293T: sc-369956 (**B**), Jurkat (**C**) and HeLa (**D**) whole cell lysates.



TRIP13 (A-7): sc-514285. Western blot analysis of TRIP13 expression in Jurkat (**A**), HT-1080 (**B**) and K-562 (**C**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Alfieri, C., et al. 2018. Mechanism for remodelling of the cell cycle checkpoint protein MAD2 by the ATPase TRIP13. Nature 559: 274-278.
2. Friman, T., et al. 2021. CETSA MS profiling for a comparative assessment of FDA-approved antivirals repurposed for COVID-19 therapy identifies TRIP13 as a remdesivir off-target. SLAS Discov. 26: 336-344.
3. Ng, Y.L.D., et al. 2022. Proteomic profiling reveals CDK6 upregulation as a targetable resistance mechanism for lenalidomide in multiple myeloma. Nat. Commun. 13: 1009.
4. Zhang, L.T., et al. 2022. TRIP13 induces nedaplatin resistance in esophageal squamous cell carcinoma by enhancing repair of DNA damage and inhibiting apoptosis. Biomed Res. Int. 2022: 7295458.
5. Lu, S., et al. 2023. KIFC3 regulates progression of hepatocellular carcinoma via EMT and the AKT/mTOR pathway. Exp. Cell Res. 426: 113564.
6. Anand, J.R., et al. 2025. TRIP13 protects pancreatic cancer cells against intrinsic and therapy-induced DNA replication stress. bioRxiv. E-published.

STORAGE

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