

TRUB2 (E-6): sc-514573



The Power to Question

BACKGROUND

TRUB2 (tRNA pseudouridine synthase 2) is a 331 amino acid protein that most likely is responsible for the synthesis of pseudouridine from isomerization of uracil in tRNA. TRUB2 contains one TruB domain and shares 30% sequence similarity with TRUB1. Both TRUB1 and TRUB2 are phylogenetically linked to the original eubacterial tRNA synthases and distinct from Dyskerin. The gene encoding TRUB2 maps to human chromosome 9, which houses over 900 genes and comprises nearly 4% of the human genome. Hereditary hemorrhagic telangiectasia, which is characterized by harmful vascular defects, and Familial dysautonomia, are both associated with chromosome 9. Notably, chromosome 9 encompasses the largest interferon family gene cluster.

REFERENCES

1. Nurse, K., et al. 1995. Purification, cloning, and properties of the tRNA psi 55 synthase from *Escherichia coli*. RNA 1: 102-112.
2. Kinghorn, S.M., et al. 2002. Physiological analysis of the role of TRUB in *Escherichia coli*: a role for tRNA modification in extreme temperature resistance. Microbiology 148: 3511-3520.
3. Zucchini, C., et al. 2003. The human TruB family of pseudouridine synthase genes, including the Dyskeratosis Congenita 1 gene and the novel member TRUB1. Int. J. Mol. Med. 11: 697-704.
4. Pan, H., et al. 2003. Structure of tRNA pseudouridine synthase TruB and its RNA complex: RNA recognition through a combination of rigid docking and induced fit. Proc. Natl. Acad. Sci. USA 100: 12648-12653.
5. Roovers, M., et al. 2006. Formation of the conserved pseudouridine at position 55 in archaeal tRNA. Nucleic Acids Res. 34: 4293-4301.
6. Gurha, P., et al. 2007. Differential roles of archaeal box H/ACA proteins in guide RNA-dependent and independent pseudouridine formation. RNA Biol. 4: 101-109.

CHROMOSOMAL LOCATION

Genetic locus: TRUB2 (human) mapping to 9q34.11.

SOURCE

TRUB2 (E-6) is a mouse monoclonal antibody raised against amino acids 141-309 mapping near the C-terminus of TRUB2 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

TRUB2 (E-6) is available conjugated to agarose (sc-514573 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514573 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514573 PE), fluorescein (sc-514573 FITC), Alexa Fluor® 488 (sc-514573 AF488), Alexa Fluor® 546 (sc-514573 AF546), Alexa Fluor® 594 (sc-514573 AF594) or Alexa Fluor® 647 (sc-514573 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514573 AF680) or Alexa Fluor® 790 (sc-514573 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

TRUB2 (E-6) is recommended for detection of TRUB2 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 TRUB2 siRNA (h): sc-92702, TRUB2 shRNA Plasmid (h): sc-92702-SH and TRUB2 shRNA (h) Lentiviral Particles: sc-92702-V.

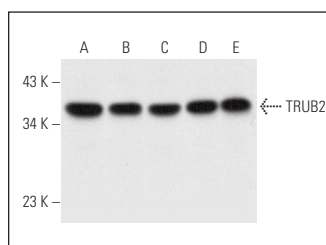
Molecular Weight of TRUB2: 37 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409, JAR cell lysate: sc-2276 or HeLa whole cell lysate: sc-2200.

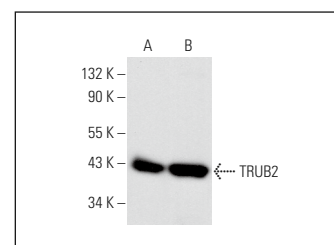
RECOMMENDED SUPPORT REAGENTS

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.

DATA



TRUB2 (E-6): sc-514573. Western blot analysis of TRUB2 expression in Hep G2 (A), JAR (B), IMR-32 (C), A2058 (D) and HeLa (E) whole cell lysates.



TRUB2 (E-6): sc-514573. Western blot analysis of TRUB2 expression in SK-MEL-24 (A) and A-431 (B) 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.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.