

ZNRD1 (D-10): sc-393406

BACKGROUND

ZNRD1 (zinc ribbon domain containing 1), also known as TEX6, Rpa12 or hZR14, is a 126 amino acid protein that localizes to the nucleolus and contains one TFIIIS-type zinc finger. Existing as a component of the multi-protein Pol I (RNA polymerase I) complex, ZNRD1 functions as a DNA-dependent RNA polymerase that catalyzes the transcription of DNA into RNA and plays a role in the synthesis of ribosomal RNA (rRNA) precursors. The gene encoding ZNRD1 maps to human chromosome 6, which contains 170 million base pairs and comprises nearly 6% of the human genome. Deletion of a portion of the q arm of chromosome 6 is associated with early onset intestinal cancer, suggesting the presence of a cancer susceptibility locus. Additionally, porphyria cutanea tarda, Parkinson's disease, Stickler syndrome and a susceptibility to bipolar disorder are all associated with genes that map to chromosome 6.

CHROMOSOMAL LOCATION

Genetic locus: ZNRD1 (human) mapping to 6p22.1; Znr1 (mouse) mapping to 17 B1.

SOURCE

ZNRD1 (D-10) is a mouse monoclonal antibody raised against amino acids 71-126 mapping at the C-terminus of ZNRD1 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.

ZNRD1 (D-10) is available conjugated to agarose (sc-393406 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393406 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393406 PE), fluorescein (sc-393406 FITC), Alexa Fluor® 488 (sc-393406 AF488), Alexa Fluor® 546 (sc-393406 AF546), Alexa Fluor® 594 (sc-393406 AF594) or Alexa Fluor® 647 (sc-393406 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393406 AF680) or Alexa Fluor® 790 (sc-393406 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

ZNRD1 (D-10) is recommended for detection of ZNRD1 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).

Suitable for use as control antibody for ZNRD1 siRNA (h): sc-77010, ZNRD1 siRNA (m): sc-77011, ZNRD1 shRNA Plasmid (h): sc-77010-SH, ZNRD1 shRNA Plasmid (m): sc-77011-SH, ZNRD1 shRNA (h) Lentiviral Particles: sc-77010-V and ZNRD1 shRNA (m) Lentiviral Particles: sc-77011-V.

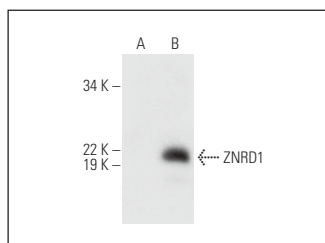
Molecular Weight of ZNRD1: 14 kDa.

Positive Controls: human ZNRD1 transfected HEK293T whole cell lysate.

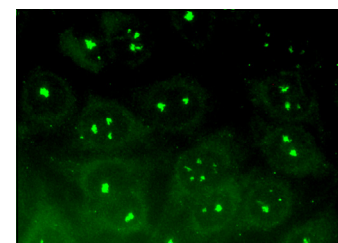
RECOMMENDED SUPPORT REAGENTS

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



ZNRD1 (D-10): sc-393406. Western blot analysis of ZNRD1 expression in non-transfected (A) and human ZNRD1 transfected (B) HEK293T whole cell lysates.



ZNRD1 (D-10): sc-393406. Immunofluorescence staining of methanol-fixed HeLa cells showing nucleolar localization.

SELECT PRODUCT CITATIONS

- Hu, X., et al. 2019. MiR-26b suppresses hepatocellular carcinoma development by negatively regulating ZNRD1 and Wnt/ β -catenin signaling. *Cancer Med.* 8: 7359-7371.
- Yin, X., et al. 2021. RNA polymerase I subunit 12 plays opposite roles in cell proliferation and migration. *Biochem. Biophys. Res. Commun.* 560: 112-118.
- Ford, B.L., et al. 2023. Expression of RNA polymerase I catalytic core is influenced by RPA12. *PLoS ONE* 18: e0285660.
- Azad, P., et al. 2023. Long noncoding RNA HIKER regulates erythropoiesis in Monge's disease via CSNK2B. *J. Clin. Invest.* 133: e165831.

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 for detailed protocols and support products.

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