SANTA CRUZ BIOTECHNOLOGY, INC.

TRMT112 (F-7): sc-398481

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

With approximately 135 million base pairs and 1,400 genes, chromosome 11 makes up around 4% of human genomic DNA and is considered a gene and disease association dense chromosome. The chromosome 11 encoded Atm gene is important for regulation of cell cycle arrest and apoptosis following double strand DNA breaks. Atm mutation leads to the disorder known as ataxia-telangiectasia. The blood disorders Sickle cell anemia and β thalassemia are caused by HBB gene mutations. Wilms' tumors, WAGR syndrome and Denys-Drash syndrome are associated with mutations of the WT1 gene. Jervell and Lange-Nielsen syndrome, Jacobsen syndrome, Niemann-Pick disease, hereditary angioedema and Smith-Lemli-Opitz syndrome are also associated with defects in chromosome 11. The HSPC152 gene product has been provisionally designated HSPC152 pending further characterization.

REFERENCES

1. Grossfeld, P.D., et al. 2004. The 11q terminal deletion disorder: a prospective study of 110 cases. Am. J. Med. Genet. A 129A: 51-61.
2. Loussouarn, G., et al. 2006. KCNQ1 K^+ channel-mediated cardiac channelopathies. Methods Mol. Biol. 337: 167-183.
3. Taylor, T.D., et al. 2006. Human chromosome 11 DNA sequence and analysis including novel gene identification. Nature 440: 497-500.
4. Zehelein, J., et al. 2006. Skipping of exon 1 in the KCNQ1 gene causes Jervell and Lange-Nielsen syndrome. J. Biol. Chem. 281: 35397-35403.
5. Ataga, K.I., et al. 2007. β-thalassaemia and sickle cell anaemia as paradigms of hypercoagulability. Br. J. Haematol. 139: 3-13.

CHROMOSOMAL LOCATION

Genetic locus: TRMT112 (human) mapping to 11q13.1.

SOURCE

TRMT112 (F-7) is a mouse monoclonal antibody raised against amino acids 20-118 mapping within an internal region of TRMT112 of human origin.

PRODUCT

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

TRMT112 (F-7) is available conjugated to agarose (sc-398481 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-398481 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398481 PE), fluorescein (sc-398481 FITC), Alexa Fluor® 488 (sc-398481 AF488), Alexa Fluor® 546 (sc-398481 AF546), Alexa Fluor® 594 (sc-398481 AF594) or Alexa Fluor® 647 (sc-398481 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398481 AF680) or Alexa Fluor® 790 (sc-398481 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

APPLICATIONS

TRMT112 (F-7) is recommended for detection of TRMT112 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 TRMT112 siRNA (h): sc-96298, TRMT112 shRNA Plasmid (h): sc-96298-SH and TRMT112 shRNA (h) Lentiviral Particles: sc-96298-V.

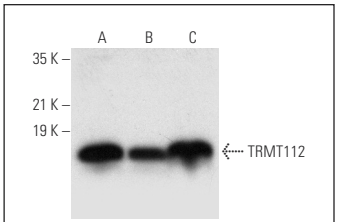
Molecular Weight of TRMT112: 14 kDa.

Positive Controls: U-251-MG whole cell lysate: sc-364176, T98G cell lysate: sc-2294 or RT-4 whole cell lysate: sc-364257.

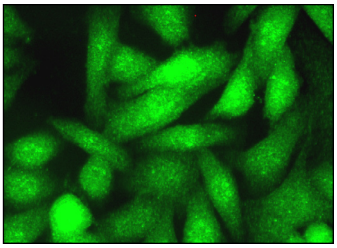
RECOMMENDED SUPPORT REAGENTS

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



TRMT112 (F-7): sc-398481. Western blot analysis of TRMT112 expression in U-251-MG (**A**), T98G (**B**) and RT-4 (**C**) whole cell lysates.



TRMT112 (F-7): sc-398481. Immunofluorescence staining of formalin-fixed SW480 cells showing nuclear and cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Brumele, B., et al. 2021. Human TRMT112-methyltransferase network consists of seven partners interacting with a common co-factor. Int. J. Mol. Sci. 22: 13593.
2. Sepich-Poore, C., et al. 2022. The METTL5-TRMT112 N^6-methyladenosine methyltransferase complex regulates mRNA translation via 18S rRNA methylation. J. Biol. Chem. 298: 101590.

RESEARCH USE

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