

MA3 (E-15): sc-243391

BACKGROUND

MA3, also known as PNMA3 (paraneoplastic antigen MA3), is a 463 amino acid nuclear protein that contains one CCHC-type zinc finger and belongs to the paraneoplastic antigen MA (PNMA) family. Highly expressed in testis and brain, MA3 is found at lower levels in kidney, trachea and heart. MA3 exists as two alternatively spliced isoforms, and antibodies against MA3 are found in serum of patients with paraneoplastic neurological disorders. The gene encoding MA3 maps to human chromosome X, which consists of about 153 million base pairs and nearly 1,000 genes. Color blindness, hemophilia and Duchenne muscular dystrophy are well known X chromosome-linked conditions which affect males more frequently, as males carry a single X chromosome.

REFERENCES

- Rosenfeld, M.R., et al. 2001. Molecular and clinical diversity in paraneoplastic immunity to Ma proteins. *Ann. Neurol.* 50: 339-348.
- Bernardino-Sgherri, J., et al. 2002. Overall DNA methylation and chromatin structure of normal and abnormal X chromosomes. *Cytogenet. Genome Res.* 99: 85-91.
- Deeb, S.S. 2005. The molecular basis of variation in human color vision. *Clin. Genet.* 67: 369-377.
- Schüller, M., et al. 2005. The human PNMA family: novel neuronal proteins implicated in paraneoplastic neurological disease. *J. Neuroimmunol.* 169: 172-176.
- Wills, N.M., et al. 2006. A functional -1 ribosomal frameshift signal in the human paraneoplastic Ma3 gene. *J. Biol. Chem.* 281: 7082-7088.
- Maggio, M.C., et al. 2007. Polycystic ovary and gonadoblastoma in Turner's syndrome. *Minerva Pediatr.* 59: 397-401.
- Online Mendelian Inheritance in Man, OMIM™. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 300675. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Helderman-van den Enden, A.T., et al. 2009. Recurrence risk due to germ line mosaicism: Duchenne and Becker muscular dystrophy. *Clin. Genet.* 75: 465-472.
- Kasper, C.K., et al. 2009. Mosaicism and haemophilia. *Haemophilia* 16: 972.

CHROMOSOMAL LOCATION

Genetic locus: PNMA3 (human) mapping to Xq28; Pnma3 (mouse) mapping to X A7.3.

SOURCE

MA3 (E-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of MA3 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-243391 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

MA3 (E-15) is recommended for detection of MA3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 MA3 siRNA (h): sc-91020, MA3 siRNA (m): sc-149205, MA3 shRNA Plasmid (h): sc-91020-SH, MA3 shRNA Plasmid (m): sc-149205-SH, MA3 shRNA (h) Lentiviral Particles: sc-91020-V and MA3 shRNA (m) Lentiviral Particles: sc-149205-V.

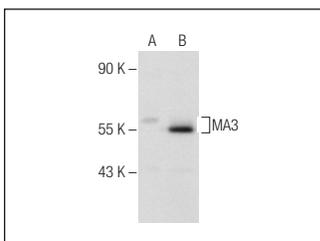
Molecular Weight of MA3: 52 kDa.

Positive Controls: MA3 (m): 293T Lysate: sc-121474.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



MA3 (E-15): sc-243391. Western blot analysis of MA3 expression in non-transfected: sc-117752 (A) and mouse MA3 transfected: sc-121474 (B) 293T 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.



Try **MA3 (A-1): sc-515510**, our highly recommended monoclonal alternative to MA3 (E-15).