SANTA CRUZ BIOTECHNOLOGY, INC.

MA1 (D-19): sc-66390

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Paraneoplastic neurological disorders (PNDs) are rare syndromes that are caused by, or associated with, an underlying neoplasm. The most common neoplasm among young male patients is testicular cancer, but the leading cause among other patients is lung cancer. Most PNDs are caused by an immune response against onconeural antigens, causing progressive neurological damage. The paraneoplastic antigen MA family contains three known members: MA1, MA2 and MA3. MA1, also designated neuron- and testis-specific protein 1, is a nucleolar protein in normal cells but localizes to the cytoplasm of tumor cells. MA2, also designated onconeuronal antigen MA2, is a nucleolar protein expressed in brain and testis. MA3 is highly expressed in brain and testis and is expressed at low levels in heart, trachea and kidney.

REFERENCES

1. Dalmau, J., Gultekin, S.H., Voltz, R., Hoard, R., DesChamps, T., Balmaceda, C., Batchelor, T., Gerstner, E., Eichen, J., Frennier, J., Posner, J.B. and Rosenfeld, M.R. 1999. Ma1, a novel neuron and testis-specific protein, is recognized by the serum of patients with paraneoplastic neurological disorders. Brain 122: 27-39.
2. Rosenfeld, M.R., Eichen, J.G., Wade, D.F., Posner, J.B. and Dalmau, J. 2001. Molecular and clinical diversity in paraneoplastic immunity to Ma proteins. Ann. Neurol. 50: 339-348.
3. Pellkofer, H., Schubart, A.S., Höftberger, R., Schutze, N., Pagany, M., Schüller, M., Lassmann, H., Hohlfeld, R., Voltz, R. and Linington, C. 2004. Modelling paraneoplastic CNS disease: T-cells specific for the onconeuronal antigen PNMA1 mediate autoimmune encephalomyelitis in the rat. Brain 127: 1822-1830.
4. Schüller, M., Jenne, D. and Voltz, R. 2005. The human PNMA family: novel neuronal proteins implicated in paraneoplastic neurological disease. J. Neuroimmunol. 169: 172-176.

CHROMOSOMAL LOCATION

Genetic locus: PNMA1 (human) mapping to 14q24.3.

SOURCE

MA1 (D-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of MA1 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-66390 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

MA1 (D-19) is recommended for detection of MA1 of 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).

MA1 (D-19) is also recommended for detection of MA1 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for MA1 siRNA (h): sc-62571, MA1 shRNA Plasmid (h): sc-62571-SH and MA1 shRNA (h) Lentiviral Particles: sc-62571-V.

Molecular Weight of MA1: 37 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409.

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.

PROTOCOLS

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