SANTA CRUZ BIOTECHNOLOGY, INC.

CDR2 (K-13): sc-109228

BACKGROUND

CDR2 (cerebellar degeneration-related protein 2), also referred to as Yo or CDR62, is a 545 amino acid protein that is associated with the development of paraneoplastic cerebellar degeneration (PCD). PCD, an immune-mediated syndrome, belongs to a heterogeneous group of rare paraneoplastic neurologic disorders affecting the neurological system. PCD is characterized by subacute cerebellar ataxia and occurs mainly in patients with ovarian, uterine, fallopian tube or breast cancer. Patients with ovarian or breast cancer develop an immune response against cancer cell-expressed CDR2 and Purkinje neuron-expressed CDR2. The presence of the anti-CDR2 antibody in patients with PCD symptoms warrants an aggressive approach to diagnosis and treatment of the underlying cancer.

REFERENCES

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2. Peterson, K., et al. 1992. Paraneoplastic cerebellar degeneration. I. A clinical analysis of 55 anti-Yo antibody-positive patients. Neurology 42: 1931-1937.
3. Tanaka, M., et al. 1995. Trial to establish an animal model of paraneoplastic cerebellar degeneration with anti-Yo antibody. 1. Mouse strains bearing different MHC molecules produce antibodies on immunization with recombinant Yo protein, but do not cause Purkinje cell loss. Clin. Neurol. Neurosurg. 97: 95-100.
4. Giometto, B., et al. 1997. Sub-acute cerebellar degeneration with anti-Yo autoantibodies: immunohistochemical analysis of the immune reaction in the central nervous system. Neuropathol. Appl. Neurobiol. 23: 468-474.
5. Tanaka, M., et al. 1998. Cytotoxic T cells react with recombinant Yo protein from a patient with paraneoplastic cerebellar degeneration and anti-Yo antibody. J. Neurol. Sci. 161: 88-90.
6. Shams'ili, S., et al. 2003. Paraneoplastic cerebellar degeneration associated with antineuronal antibodies: analysis of 50 patients. Brain 126: 1409-1418.
7. Stich, O., et al. 2003. Qualitative evidence of anti-Yo-specific intrathecal antibody synthesis in patients with paraneoplastic cerebellar degeneration. J. Neuroimmunol. 141: 165-169.
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CHROMOSOMAL LOCATION

Genetic locus: CDR2 (human) mapping to 16p12.1; Cdr2 (mouse) mapping to 7 F2.

SOURCE

CDR2 (K-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CDR2 of human origin.

STORAGE

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

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-109228 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CDR2 (K-13) is recommended for detection of CDR2 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 CDR2 siRNA (h): sc-93501, CDR2 siRNA (m): sc-142235, CDR2 shRNA Plasmid (h): sc-93501-SH, CDR2 shRNA Plasmid (m): sc-142235-SH, CDR2 shRNA (h) Lentiviral Particles: sc-93501-V and CDR2 shRNA (m) Lentiviral Particles: sc-142235-V.

Molecular Weight of CDR2: 62 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

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.

RESEARCH USE

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

PROTOCOLS

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