

Nova-1 (512Y): sc-100334

BACKGROUND

Nova-1 and Nova-2 are members of a superfamily of protein regulators of RNA metabolism in neurons. Both are nuclear RNA binding proteins with K homology motifs, conserved protein sequences which bind to RNA. Nova proteins, normally sequestered in the central nervous system, are expressed by systemic tumors in patients with the autoimmune disorder paraneoplastic opsoclonus-myoclonus ataxia (POMA). Nova-1 is expressed in the hindbrain and ventral spinal cord and Nova-2 is expressed in the neocortex and hippocampus. Nova-1 is necessary for regulating neuron-specific alternative splicing of the glycine receptor $\alpha 2$ pre-mRNA.

REFERENCES

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3. Yang, Y.Y., Yin, G.L. and Darnell, R.B. 1998. The neuronal RNA-binding protein Nova-2 is implicated as the autoantigen targeted in POMA patients with dementia. *Proc. Natl. Acad. Sci. USA* 95: 13254-13259.
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5. Jensen, K.B., Dredge, B.K., Stefani, G., Zhong, R., Buckanovich, R.J., Okano, H.J., Yang, Y.Y.L. and Darnell, R.B. 2000. Nova-1 regulates neuron-specific alternative splicing and is essential for neuronal variability. *Neuron* 25: 359-371.

CHROMOSOMAL LOCATION

Genetic locus: NOVA1 (human) mapping to 14q12; Nova1 (mouse) mapping to 12 B3.

SOURCE

Nova-1 (512Y) is a mouse monoclonal antibody raised against recombinant Nova-1 of human origin.

PRODUCT

Each vial contains 100 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

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.

APPLICATIONS

Nova-1 (512Y) is recommended for detection of Nova-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Nova-1 siRNA (h): sc-42142, Nova-1 siRNA (m): sc-42143, Nova-1 shRNA Plasmid (h): sc-42142-SH, Nova-1 shRNA Plasmid (m): sc-42143-SH, Nova-1 shRNA (h) Lentiviral Particles: sc-42142-V and Nova-1 shRNA (m) Lentiviral Particles: sc-42143-V.

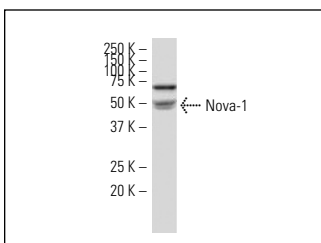
Molecular Weight of Nova-1: 50-55 kDa.

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

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



Nova-1 (512Y): sc-100334. Western blot analysis of Nova expression in IMR-32 whole cell lysate.

RESEARCH USE

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