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NOVA1 Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP20983a

Product Information

Application	WB, IHC-P, E
Primary Accession	P51513
Reactivity	Human, Rat, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB50877
Calculated MW	51727

Additional Information

Gene ID	4857
Other Names	RNA-binding protein Nova-1, Neuro-oncological ventral antigen 1, Onconeural ventral antigen 1, Paraneoplastic Ri antigen, Ventral neuron-specific protein 1, NOVA1
Target/Specificity	This NOVA1 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 139-173 amino acids from the Central region of human NOVA1.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	NOVA1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	NOVA1 (HGNC:7886)
Function	RNA-binding protein which regulates alternative splicing of pre-mRNAs in the brain and spinal cord in a sequence-specific manner (By similarity). Binds to 5'-YCAY-3' repeats, with a minimum of 2 to 3 repeats necessary for high-affinity binding. Mediates both exon inclusion and exclusion, depending

upon the position of its binding site within the pre-mRNA (PubMed:10811881). Binding to 5'-YCAY-3' clusters results in a local and asymmetric action to regulate spliceosome assembly. Binding to an exonic 5'-YCAY-3' cluster changes the protein complexes assembled on pre-mRNA, blocking U1 small nuclear ribonucleoprotein (snRNP) binding and inhibiting exon inclusion, whereas binding to an intronic 5'-YCAY-3' repeat enhances spliceosome assembly and favors exon inclusion (By similarity). Regulates the splicing of gamma-aminobutyric acid receptor subunit gamma-2 (GABRG2) and glycine receptor subunit alpha-2 (GLRA2) pre-mRNAs, among others (By similarity). Autoregulates its own splicing. Binds to its own exon 4 and directs its exclusion, thus leading to NOVA1 isoform 3 production (By similarity). May affect the splicing of many genes involved in vocal behavior (By similarity).

Cellular Location Nucleus {ECO:0000250|UniProtKB:Q9JKN6}.

Tissue Location Expressed in cerebellum, brain stem, hippocampus, and frontal cortex.

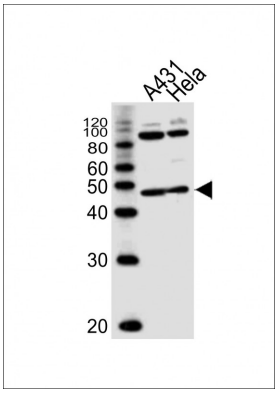
Background

May regulate RNA splicing or metabolism in a specific subset of developing neurons.

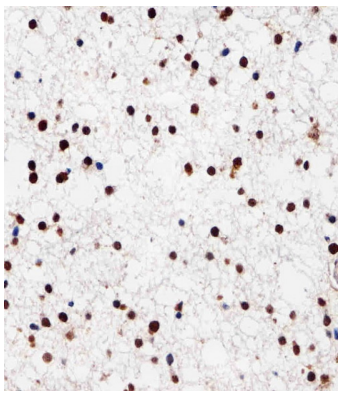
References

Buckanovich R.J.,et al.Neuron 11:657-672(1993).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Venter J.C.,et al.Science 291:1304-1351(2001).
Mural R.J.,et al.Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.
Dmitrenko V.V.,et al.Submitted (APR-1996) to the EMBL/GenBank/DDBJ databases.

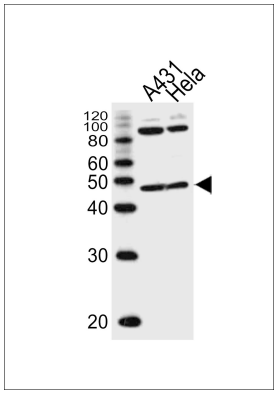
Images



All lanes : Anti-NOVA1 Antibody (Center)(AP20983a) at 1:1000 dilution Lane 1: A431 whole cell lysates Lane 2: Hela whole cell lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution Predicted band size : 49 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Immunohistochemical analysis of paraffin-embedded H. astroglioma section using NOVA1 Antibody (Center)(Cat#AP20983a). AP20983a was diluted at 1:25 dilution. A undiluted biotinylated goat polyvalent antibody was used as the secondary, followed by DAB staining.



Western blot analysis of lysates from A431, Hela cell line (from left to right), using NOVA1 Antibody (Center)(Cat. #AP20983a). AP20983a was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysates at 20ug per lane.