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NOVA1 Antibody (Center)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP20963a

Specification

NOVA1 Antibody (Center) - Product Information

Application	**WB, IHC-P,E**
Primary Accession	P51513
Other Accession	Q9JKN6
Reactivity	**Human**
Predicted	**Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**51727**

NOVA1 Antibody (Center) - 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~~1:25

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.

NOVA1 Antibody (Center) - Protein Information

Name NOVA1 (HGNC:7886)

Function Functions to regulate alternative splicing in neurons by binding pre-mRNA in a sequence-specific manner to activate exon inclusion or exclusion. It binds specifically to the sequences 5'-YCAY- 3' and regulates splicing in only a subset of regulated exons (PubMed:10811881). Binding to an exonic 5'-YCAY-3' cluster changes the protein complexes assembled on pre-mRNA, blocking U1 snRNP binding and exon inclusion, whereas binding to an intronic 5'-YCAY-3' cluster enhances spliceosome assembly and exon inclusion. Binding to 5'-YCAY-3' clusters results in a local and asymmetric action to regulate spliceosome assembly and alternative splicing in neurons. Binding to an exonic 5'-YCAY-3' cluster changed the protein complexes assembled on pre-mRNA, blocking U1 snRNP (small nuclear ribonucleoprotein) binding and exon inclusion, whereas binding to an intronic 5'-YCAY-3' cluster enhanced spliceosome assembly and exon inclusion. With NOVA1, they perform unique biological functions in different brain areas and cell types. Autoregulates its own expression by acting as a splicing repressor. Acts to activate the inclusion of exon E3A in the glycine receptor alpha-2 chain and of exon E9 in gamma-aminobutyric-acid receptor gamma-2 subunit via a distal downstream UCAU-rich intronic splicing enhancer. Acts to regulate a novel glycine receptor alpha-2 chain splice variant (alpha-2N) in developing spinal cord (By similarity).

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

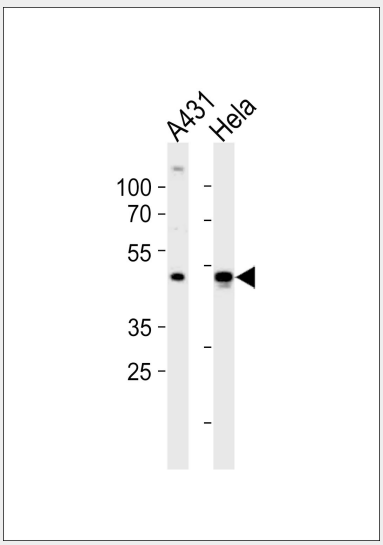
Tissue Location
Expressed in cerebellum, brain stem, hippocampus, and frontal cortex.

NOVA1 Antibody (Center) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

NOVA1 Antibody (Center) - Images



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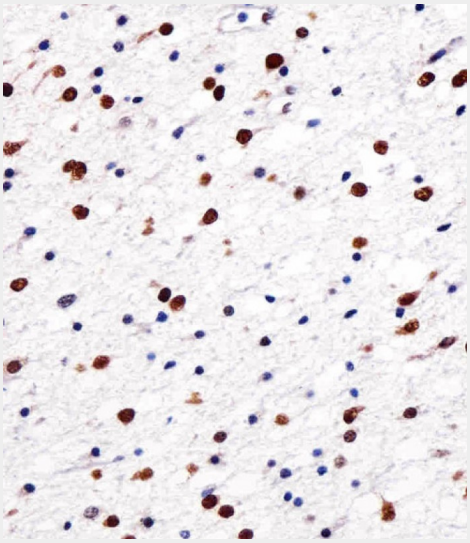
Western blot analysis of lysates from A431, Hela cell line (from left to right), using NOVA1 Antibody (Center)(Cat. #AP20963a). AP20963a was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysates at 20ug per lane.



Immunohistochemical analysis of paraffin-embedded H. astroglioma section using NOVA1 Antibody (Center)(Cat#AP20963a). AP20963a was diluted at 1:25 dilution. A undiluted biotinylated goat polyvalent antibody was used as the secondary, followed by DAB staining.

NOVA1 Antibody (Center) - Background

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

NOVA1 Antibody (Center) - 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.