

**NOVA1 Antibody (Center)**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP20983a****Specification**

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**NOVA1 Antibody (Center) - Product Information**

Application	IHC-P, WB,E
Primary Accession	<a href="#">P51513</a>
Other Accession	<a href="#">O9JKN6</a>
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**

IHC-P~~1:25

WB~~1:1000

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.

**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'-YCA Y-3' and regulates splicing in only a subset of regulated exons (PubMed:[10811881](#)). Binding to an exonic 5'-YCA Y-3' cluster changes the protein complexes assembled on pre-mRNA, blocking U1 snRNP binding and exon inclusion, whereas binding to an intronic 5'-YCA Y-3' cluster enhances spliceosome assembly and exon inclusion. Binding to 5'-YCA Y-3' clusters results in a local and asymmetric action to regulate spliceosome assembly and alternative splicing in neurons. Binding to an exonic 5'-YCA Y-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'-YCA Y-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}.

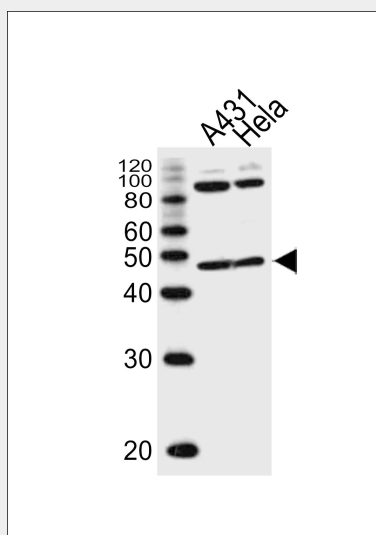
**Tissue Location**

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

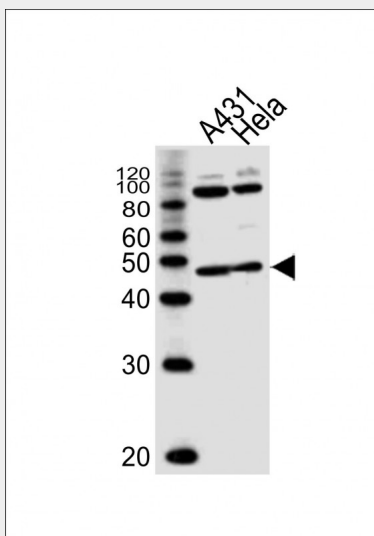
**NOVA1 Antibody (Center) - Protocols**

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

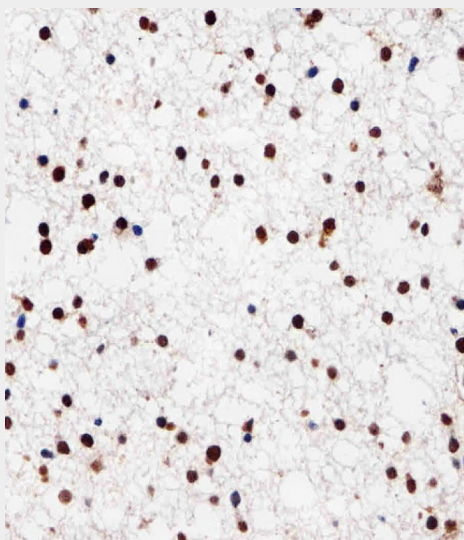
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**NOVA1 Antibody (Center) - Images**

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.



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. astrogloma 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.

#### **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.