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NOVA1 Antibody (Internal)
Goat Polyclonal Antibody
Catalog # ALS12732

Specification

NOVA1 Antibody (Internal) - Product Information

Application	**WB, IHC-P, E**
Primary Accession	P51513
Reactivity	**Human, Mouse, Rat, Rabbit, Monkey, Pig, Chicken, Xenopus, Bovine, Dog**
Host	**Goat**
Clonality	**Polyclonal**
Calculated MW	**52kDa KDa**
Dilution	**WB~~1:1000** **IHC-P~~N/A** **E~~N/A**

NOVA1 Antibody (Internal) - 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
Human NOVA1. This antibody is expected to recognise all three reported isoforms (NP_002506.2 ; NP_006480.2 ; NP_006482.1)

Reconstitution & Storage
Store at -20°C. Minimize freezing and thawing.

Precautions
NOVA1 Antibody (Internal) is for research use only and not for use in diagnostic or therapeutic procedures.

NOVA1 Antibody (Internal) - 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}.

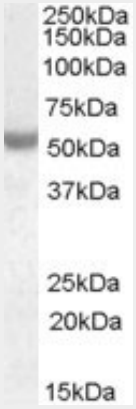
Tissue Location
Expressed in cerebellum, brain stem, hippocampus, and frontal cortex.

NOVA1 Antibody (Internal) - 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 (Internal) - Images



Antibody (0.01 ug/ml) staining of Human Breast Cancer lysate (35 ug protein in RIPA buffer).

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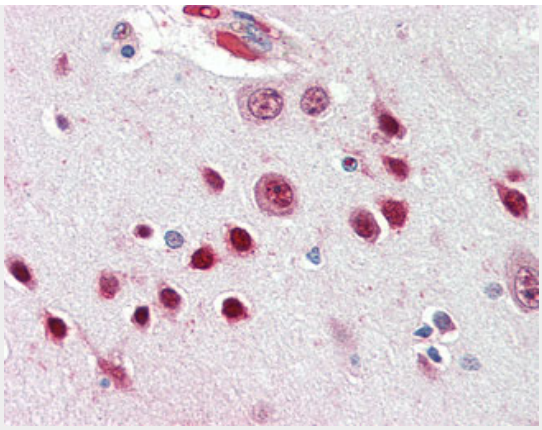
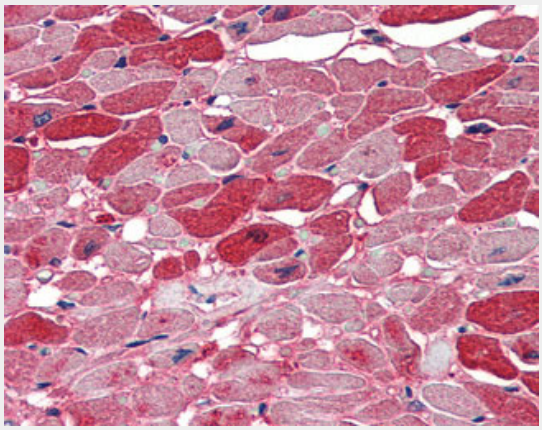


Anti-NOVA1 antibody IHC of human brain, cortex.



Anti-NOVA1 antibody IHC of human heart.

NOVA1 Antibody (Internal) - Background

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

NOVA1 Antibody (Internal) - 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.