10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

NOVA1 Blocking Peptide (Center)

Synthetic peptide
Catalog # BP20963a

Specification

NOVA1 Blocking Peptide (Center) - Product Information

Primary Accession	P51513
Other Accession	Q9JKN6

NOVA1 Blocking Peptide (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
The synthetic peptide sequence is selected from aa 139-153 of HUMAN NOVA1

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

NOVA1 Blocking Peptide (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 Blocking Peptide (Center) - Protocols

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

- Blocking Peptides

NOVA1 Blocking Peptide (Center) - Images

NOVA1 Blocking Peptide (Center) - Background

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

NOVA1 Blocking Peptide (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.