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NOVA2 Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP18062a

Specification

NOVA2 Antibody (N-term) Blocking Peptide - Product Information

Primary Accession Q9UNW9

NOVA2 Antibody (N-term) Blocking Peptide - Additional Information

Gene ID 4858

Other Names
RNA-binding protein Nova-2, Astrocytic NOVA1-like RNA-binding protein, Neuro-oncological ventral antigen 2, NOVA2, ANOVA, NOVA3

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.

NOVA2 Antibody (N-term) Blocking Peptide - Protein Information

Name NOVA2 (HGNC:7887)

Synonyms ANOVA, NOVA3

Function
Functions to regulate alternative splicing in neurons by binding pre-mRNA in a sequence-specific manner to activate exon inclusion or exclusion (PubMed:32197073). 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. With NOVA1, they perform unique biological functions in different brain areas and cell types. Uniquely regulates alternative splicing events of a series of axon guidance related genes during cortical development, being essential for central nervous system development by regulating neural networks wiring. Regulates differentially alternative splicing on the same transcripts expressed in different neurons. This includes functional differences in transcripts expressed in cortical and cerebellar excitatory versus inhibitory neurons where is required for, respectively, development of laminar structure and motor coordination and synapse formation. Also the regulation the regulation of intron retention can

sequester the trans-acting splicing factor PTBP2, acting as a variable cis-acting scaffolding platform for PTBP2 across various natural conditions (By similarity).

Cellular Location
Nucleus {ECO:0000250|UniProtKB:A0A1W2P872}.

Tissue Location
Brain. Expression restricted to astrocytes.

NOVA2 Antibody (N-term) Blocking Peptide - Protocols

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

- Blocking Peptides

NOVA2 Antibody (N-term) Blocking Peptide - Images

NOVA2 Antibody (N-term) Blocking Peptide - Background

NOVA2 may regulate RNA splicing or metabolism in a specific subset of developing neurons (By similarity). Binds single strand RNA.

NOVA2 Antibody (N-term) Blocking Peptide - References

Heinzen, E.L., et al. Am. J. Hum. Genet. 80(5):876-883(2007)Grimwood, J., et al. Nature 428(6982):529-535(2004)Lewis, H.A., et al. Cell 100(3):323-332(2000)Lewis, H.A., et al. Structure 7(2):191-203(1999)Yang, Y.Y., et al. Proc. Natl. Acad. Sci. U.S.A. 95(22):13254-13259(1998)