

## RNA-binding protein Nova-1 Antibody

Mouse Monoclonal Antibody [Clone BICCN-NOVA1-2B3]

Catalog No	Format	Size
4857-MSM13-P0	Purified Ab with BSA and Azide at 200ug/ml	20 ug
4857-MSM13-P1	Purified Ab with BSA and Azide at 200ug/ml	100 ug
4857-MSM13-P1ABX	Purified Ab WITHOUT BSA or Azide at 1.0mg/ml	100 ug

Applications	Tested Dillution	Note
Immunohistochemistry (IHC)	1-2ug/ml	30 min at RT. Staining of formalin-fixed tissues requires heating tissue sections in 10mM Tris with 1mM EDTA, pH 9.0, for 45 min at 95°C followed by cooling at RT for 20 minutes
Western Blot (WB)	2-4ug/ml	

### Product Details

<b>Clone</b>	BICCN-NOVA1-2B3
<b>Immunogen</b>	Recombinant fragment (around aa 1-507) of human NOVA1 protein
<b>Host</b>	Mouse
<b>Clonality</b>	Monoclonal
<b>Isotype / Light Chain</b>	IgG1 / Kappa
<b>Mol. Weight of Antigen</b>	51.73kDa
<b>Cellular Localization</b>	Nucleus
<b>Species Reactivity</b>	Human
<b>Positive Control</b>	Expressed in cerebellum, brain stem, hippocampus, and frontal cortex

\*Optimal dilution for a specific application should be determined.

### Product Images for RNA-binding protein Nova-1 Antibody

#### Specificity & Comments

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).

#### Limitations and Warranty

This antibody is available for research use only and is not approved for use in diagnosis. There are no warranties, expressed or implied, which extend beyond this description. Company is not liable for any personal injury or economic loss resulting from this product.

#### Supplied As

200ug/ml of Ab purified from Bioreactor Concentrate by Protein G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.

#### Storage and Stability

Antibody with azide - store at 2 to 8 °C. Antibody without azide - store at -20 to -80 °C. Antibody is stable for 24 months. Non-hazardous. No MSDS required.