

# CASPR Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP54391

## Product Information

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<b>Application</b>	WB, IHC-P, IHC-F, IF, ICC, E
<b>Primary Accession</b>	<a href="#">P78357</a>
<b>Reactivity</b>	Rat, Pig, Dog, Bovine
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Calculated MW</b>	156267
<b>Physical State</b>	Liquid
<b>Immunogen</b>	KLH conjugated synthetic peptide derived from human CASPR/Neurexin4
<b>Epitope Specificity</b>	151-250/1384
<b>Isotype</b>	IgG
<b>Purity</b>	affinity purified by Protein A

**Buffer** 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.

**SUBCELLULAR LOCATION** Membrane.

**SIMILARITY** Belongs to the neurexin family.

**SUBUNIT** Interacts with contactin in cis form.

**Important Note** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

**Background Descriptions** Neurexins comprise a family of neuronal cell surface proteins, which include neurexin I (NRXN1), neurexin II (NRXN2), neurexin III (NRXN3) and CASPR (neurexin IV). Neurexins I-III are expressed as  $\alpha$  and  $\beta$  isoforms. The  $\alpha$  isoforms are made of three cassettes, which contain two LNS (laminin A, neurexins, sex hormone-binding)-domains separated by EGF domains, followed by a transmembrane region and a 55 amino acid cytoplasmic C-terminal. The  $\beta$  isoforms bind to neuroligins at the second LNS site, and to the excitatory neurotoxin  $\alpha$ -latrotoxin. The  $\beta$  isoforms have only one LNS-domain, bind to neuroligins and play a role in the formation and remodeling of synapses. CASPR (for contactin-associated protein 1, also designated paranodin in mouse), contains an extracellular domain similar to the other three neurexins, and binds to the surface glycoprotein contactin. CASPR and the closely related CASPR2, a mammalian homolog of Drosophila neurexin IV (Nrx-IV), demarcate distinct subdomains in myelinated axons. Specifically, CASPR exists at the paranodal junctions, while CASPR2 co-localizes with Shaker-like K<sup>+</sup> channels in the juxtaparanodal region. CASPR may play a role in the communication of glial cells and neurons during development.

## Additional Information

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**Gene ID** 8506

**Other Names** Contactin-associated protein 1, Caspr, Caspr1, Neurexin IV, Neurexin-4, p190,

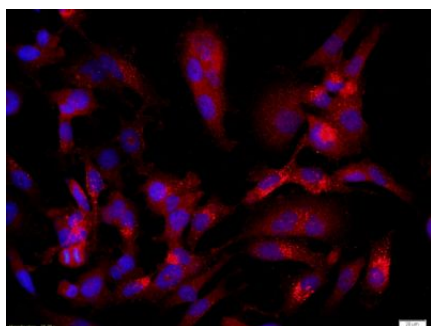
CNTNAP1, CASPR, NRXN4

<b>Target/Specificity</b>	Predominantly expressed in brain. Weak expression detected in ovary, pancreas, colon, lung, heart, intestine and testis.
<b>Dilution</b>	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC=1:100-500,IF=1:100-500,Flow-Cyt=3ug/Test,ELISA=1:5000-10000
<b>Format</b>	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glycerol
<b>Storage</b>	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

## Protein Information

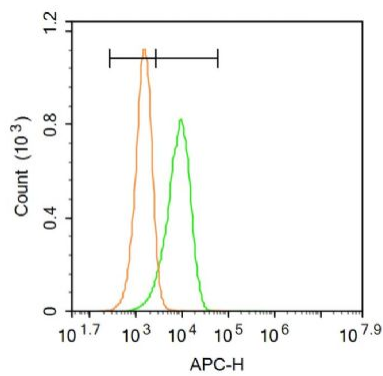
<b>Name</b>	CNTNAP1
<b>Synonyms</b>	CASPR, NRXN4
<b>Function</b>	Required, with CNTNAP2, for radial and longitudinal organization of myelinated axons. Plays a role in the formation of functional distinct domains critical for saltatory conduction of nerve impulses in myelinated nerve fibers. Demarcates the paranodal region of the axo-glial junction. In association with contactin involved in the signaling between axons and myelinating glial cells.
<b>Cellular Location</b>	Membrane; Single-pass type I membrane protein. Cell junction, paranodal septate junction {ECO:0000250 UniProtKB:O54991}
<b>Tissue Location</b>	Predominantly expressed in brain. Weak expression detected in ovary, pancreas, colon, lung, heart, intestine and testis

## Images



Tissue/cell: human glioma cells(U251 cells);4% Paraformaldehyde-fixed and paraffin-embedded;  
Antigen retrieval: citrate buffer ( 0.01M, pH 6.0 ), Boiling bathing for 15min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;  
Incubation: Anti-CASPR Polyclonal Antibody, Unconjugated(AP54391) 1:200, overnight at 4°C; The secondary antibody was Goat Anti-Rabbit IgG, Cy3 conjugated(bs-0295G-Cy3)used at 1:200 dilution for 40 minutes at 37°C. DAPI(5ug/ml,blue,C-0033) was used to stain the cell nuclei

Blank control (Black line): HUVEC (Black).  
Primary Antibody (green line): Rabbit CASPR antibody (AP54391)  
Dilution: 1 µg /10<sup>6</sup> cells;  
Isotype Control Antibody (orange line): Rabbit IgG .  
Secondary Antibody (white blue line): Goat anti-rabbit IgG-AF647  
Dilution: 1 µg /test.



#### Protocol

The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.