

Anti-CASPR Polyclonal Antibody

Product Details

Ig Type:	IgG
Reactivity:	Human (predicted:Mouse,Rat,Dog,Pig,Cow,Horse)
Molecular Weight:	Theoretical: 154 kDa.
Purification:	Protein A purified

Applications

1. Tissue/cell: human glioma cells (U251 cells); 4% Paraformaldehyde-fixed and paraffin-embedded;
Antigen retrieval: citrate buffer (0.01 M, pH 6.0), Boiling bathing for 15 min; Blocking buffer (normal goat serum) at 37°C for 20 min;
Incubation: Anti-CASPR Polyclonal Antibody, Unconjugated (TMAB-03676) 1: 200, overnight at 4°C; The secondary antibody was Goat Anti-Rabbit IgG, Cy3 conjugated used at 1: 200 dilution for 40 minutes at 37°C. DAPI (5 µg/ml, blue) was used to stain the cell nuclei

2. Blank control (Black line): HUVEC (Black).
Primary Antibody (green line): Rabbit CASPR antibody (TMAB-03676)
Dilution: 1 µg /10⁶ 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.

Verified Activity:

Application: ICC/IF,FCM

Recommended ICC/IF: 1:100-500; FCM: 3µg/Test

Properties

Stability & Storage: Store at 2°C-8°C for 1 month. Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.

Shipping: Shipping with blue ice.

Antigen Details

Immunogen:	KLH conjugated synthetic peptide: human CASPR/Neurexin4
Antigen Species:	Human
Gene ID:	8506
Uniprot ID:	P78357

Research Background

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 α and β isoforms. The α 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 α isoforms bind to neuroligins at the second LNS site, and to the excitatory neurotoxin α -latrotoxin. The β 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⁺ channels in the juxtaparanodal region. CASPR may play a role in the communication of glial cells and neurons during development.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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