

Anti-DISC1(Disrupted in schizophrenia 1 protein) Polyclonal Antibody

Cat. #: 60B713

Description:

Disrupted-In-Schizophrenia 1 (DISC1) is associated with schizophrenia by multiple genetic studies. DISC1 might cause susceptibility to schizophrenia. DISC1 has distinct interaction domains: MAP1A interacts via its LC2 domain with the N-terminus of DISC1, whereas MIPT3 and NUDEL bind via their C-terminal domains to the central coiled-coil domain of DISC1, and ATF4/5 bind via their C-terminal domains to the C-terminus of DISC1. DISC1 protein localizes to predominantly perinuclear punctate structures which extend into neurites in some cells. DISC1 is a multifunctional protein whose truncation contributes to schizophrenia susceptibility by disrupting intracellular transport, neurite architecture and/or neuronal migration, all of which have been hypothesized to be pathogenic in the schizophrenic brain. DISC1 interacts with Nudel through a leucine zipper domain and binds to a novel DISC1-interaction domain on Nudel, which is independent from the Lis1 binding site. Nudel is able to act as a bridge between DISC1 and Lis1 to allow formation of a trimolecular complex. Nudel has been implicated to play a role in neuronal migration, together with the developmental variation in the abundance of the DISC1-Nudel complex, may implicate a defective DISC1-Nudel complex as a neurodevelopmental cause of schizophrenia.

Immunogen/Specificity:

Polyclonal antibody produced in rabbits immunizing with a synthetic peptide corresponding to N-terminal residues of mouse DISC1 (Disrupted in schizophrenia 1 protein)

References

Morris, J.A., et al, Hum. Mol. Genet. 12 (13), 1591-1608 (2003)
Ozeki, Y., et al, Proc. Natl. Acad. Sci. U.S.A. 100 (1), 289-294 (2003)
Ozeki, Y., et al, Proc. Natl. Acad. Sci. U.S.A. 101, 13969-13969 (2004)
Brandon, N.J., et al, Mol. Cell. Neurosci. 25 (1), 42-55 (2004)
Brandon, N.J., et al, Mol. Cell. Neurosci. 28 (4), 613-624 (2005)
Lipska, B.K., et al, Hum. Mol. Genet. 15 (8), 1245-1258 (2006)

Species: mouse

Storage and Stability: at -20°C

Storage buffer:

This antibody is stored in PBS, 0.01% sodium azide and 50% glycerol.

Preparation:

Purified by antigen-specific affinity chromatography.

Applications :

ELISA

Western Blotting (1 µg/ml for 2 hrs)