

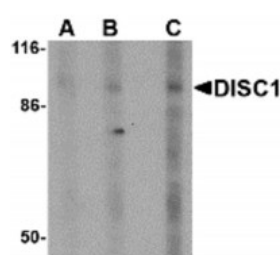
**ProSci Incorporated**  
12170 Flint Place  
Poway, CA 92064

**Toll Free:** +1 (888) 513 9525  
**Local:** +1 (858) 513 2638  
**Fax:** +1 (858) 513 2692

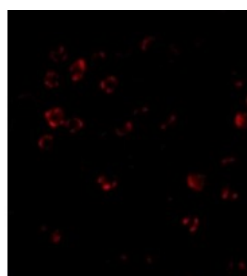
**techsupport@prosci-inc.com**  
**prosci-inc.com**

## DISC1 Antibody

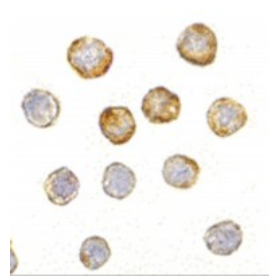
CATALOG NUMBER: 4295



Western blot analysis of DISC1 in SK-N-SH cell lysate with DISC1 antibody at (A) 0.5, (B) 1 and (C) 2 ug/mL.



Immunofluorescence of DISC1 in HeLa cells with DISC1 antibody at 20 ug/mL.



Immunocytochemistry of DISC1 in HeLa cells with DISC1 antibody at 5 ug/mL.

### Specifications

<b>SPECIES REACTIVITY:</b>	Human, Mouse
<b>HOMOLOGY:</b>	Predicted species reactivity based on immunogen sequence: Rat: (88%)
<b>TESTED APPLICATIONS:</b>	ELISA, ICC, IF, WB
<b>APPLICATIONS:</b>	DISC1 antibody can be used for detection of DISC1 by Western blot at 0.5 - 2 ug/mL. Antibody can also be used for immunocytochemistry starting at 5 ug/mL. For immunofluorescence start at 20 ug/mL.
<b>USER NOTE:</b>	Optimal dilutions for each application to be determined by the researcher.
<b>POSITIVE CONTROL:</b>	1) Cat. No. 1220 - SK-N-SH Cell Lysate 2) Cat. No. 17-001 - HeLa Cell Slide
<b>PREDICTED MOLECULAR WEIGHT:</b>	Predicted: 72, 92, 94 kDa Observed: 94 kDa
<b>SPECIFICITY:</b>	At least four isoforms of DISC1 are known to exist; this antibody will detect the three longest isoforms.
<b>IMMUNOGEN:</b>	DISC1 antibody was raised against an 18 amino acid synthetic peptide from near the center of human DISC1.  The immunogen is located within amino acids 350 - 400 of DISC1.
<b>HOST SPECIES:</b>	Rabbit

### Properties

<b>PURIFICATION:</b>	DISC1 Antibody is affinity chromatography purified via peptide column.
<b>PHYSICAL STATE:</b>	Liquid
<b>BUFFER:</b>	DISC1 Antibody is supplied in PBS containing 0.02% sodium azide.
<b>CONCENTRATION:</b>	1 mg/mL
<b>STORAGE CONDITIONS:</b>	DISC1 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high

temperatures.

**CLONALITY:** Polyclonal  
**ISOTYPE:** IgG  
**CONJUGATE:** Unconjugated

#### Additional Info

**ALTERNATE NAMES:** DISC1 Antibody: SCZD9, C1orf136, KIAA0457, Disrupted in schizophrenia 1 protein  
**ACCESSION NO.:** NP\_061132  
**PROTEIN GI NO.:** 61742823  
**OFFICIAL SYMBOL:** DISC1  
**GENE ID:** 27185

#### Background

**BACKGROUND:** DISC1 Antibody: Disrupted in schizophrenia 1 (DISC1) is a candidate gene for susceptibility to schizophrenia. It was discovered through chromosomal analysis of a large Scottish family whose members exhibited schizophrenia and related psychiatric disorders. Through yeast two-hybrid screening, it was discovered that DISC1 interacts with many members of the centrosome and cytoskeletal system including MAP1A and Nudel. More recently, DISC1 has been found to regulate the transport of a complex containing Nudel, the lissencephaly-1 (LIS1) protein, and 14-3-3epsilon from neuronal cell bodies to the axons by the action of the microtubule-dependent directed motor protein kinesin-1, also known as KIF5A. Decreased expression of DISC1 in neurons caused an accelerated rate of neuronal integration, resulting in aberrant morphological development, suggesting that DISC1 plays a role in dendritic development and synapse formation.

**REFERENCES:**

- 1) Millar JK, Wilson-Annan JC, Anderson S, et al. Disruption of two novel genes by a translocation co-segregating with schizophrenia. *Hum. Mol. Genet.* 2000; 9:1415-23.
- 2) Morris JA, Kandpal G, Ma L, et al. DISC1 (Disrupted-in-schizophrenia 1) is a centrosome-associated protein that interacts with MAP1A, MIPT3, ATF4/5 and NUDEL: regulation and loss of interaction with mutation. *Hum. Mol. Genet.* 2003; 12:1591-608.
- 3) Taya S, Shinoda T, Tsuboi D, et al. DISC1 regulates the transport of the NUDEL/LIS1/14-3-3e complex through kinesin-1. *J. Neurosci.* 2007; 27:15-26.
- 4) Duan X, Chang JH, Ge S, et al. Disrupted-in-schizophrenia 1 regulates integration of newly generated neurons in the adult brain. *Cell* 2007; 1146-58.

**FOR RESEARCH USE ONLY**

January 11, 2018