

## DISC-1 (K-20): sc-47988

### BACKGROUND

The "disrupted In schizophrenia" gene locus DISC is associated with patients afflicted with schizophrenia as a result of chromosomal translocations. DISC-1 encodes a large protein predicted to contain a globular N-terminal domain and a helical C-terminal domain, both of which have the potential to form interactions with other proteins. DISC-1 interacts with proteins involved in the centrosome and cytoskeletal system, including MIPT3, MAP1A and NUDEL; proteins which localize receptors to membranes, including  $\alpha$ -actinin 2 and  $\beta$ 4-spectrin; and proteins which transduce signals from membrane receptors, including ATF-4 and ATF-5. Therefore, DISC-1 is thought to be involved in intracellular transport, neurite architecture and/or neuronal migration, all of which are thought to be pathogenic in the schizophrenic brain. DISC-1 localizes to the nucleus, whereas mutant DISC-1 localization occurs mainly in the cytoplasm.

### CHROMOSOMAL LOCATION

Genetic locus: DISC1 (human) mapping to 1q42.2.

### SOURCE

DISC-1 (K-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of DISC-1 of human origin.

### PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-47988 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

### APPLICATIONS

DISC-1 (K-20) is recommended for detection of DISC-1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

DISC-1 (K-20) is also recommended for detection of DISC-1 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for DISC-1 siRNA (h): sc-60539, DISC-1 shRNA Plasmid (h): sc-60539-SH and DISC-1 shRNA (h) Lentiviral Particles: sc-60539-V.

Molecular Weight of DISC-1 L isoform: 100 kDa.

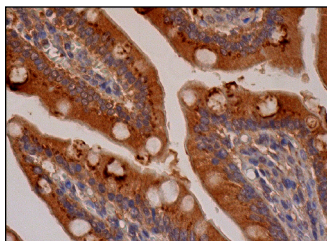
Molecular Weight of DISC-1 LV isoform: 98 kDa.

Molecular Weight of DISC-1 S isoform: 71 kDa.

### RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

### DATA



DISC-1 (K-20): sc-47988. Immunoperoxidase staining of formalin fixed, paraffin-embedded human duodenum tissue showing cytoplasmic staining of glandular cells.

### SELECT PRODUCT CITATIONS

1. Park, Y.U., et al. 2010. Disrupted-in-schizophrenia 1 (DISC1) plays essential roles in mitochondria in collaboration with mitofilin. Proc. Natl. Acad. Sci. USA 107: 17785-17790.

### RESEARCH USE

For research use only, not for use in diagnostic procedures.

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

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Try **DISC-1 (B-2): sc-365591**, our highly recommended monoclonal alternative to DISC-1 (K-20).