

#### DESCRIPTION

|                                                                                                                                                                                                         |                                                                                        |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| <b>Species Reactivity</b>                                                                                                                                                                               | Human                                                                                  |
| <b>Specificity</b>                                                                                                                                                                                      | Detects human DISC1 in direct ELISAs and Western blots.                                |
| <b>Source</b>                                                                                                                                                                                           | Monoclonal Mouse IgG <sub>1</sub> Clone # 685920                                       |
| <b>Purification</b>                                                                                                                                                                                     | Protein A or G purified from hybridoma culture supernatant                             |
| <b>Immunogen</b>                                                                                                                                                                                        | <i>E. coli</i> -derived recombinant human DISC1<br>Lys101-Arg260<br>Accession # Q9NR15 |
| <b>Conjugate</b>                                                                                                                                                                                        | Alexa Fluor 350<br>Excitation Wavelength: 346 nm<br>Emission Wavelength: 442 nm        |
| <b>Formulation</b>                                                                                                                                                                                      | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide                           |
| *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |                                                                                        |

#### APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

|                             |                                                                        |
|-----------------------------|------------------------------------------------------------------------|
| <b>Western Blot</b>         | Optimal dilution of this antibody should be experimentally determined. |
| <b>Immunohistochemistry</b> | Optimal dilution of this antibody should be experimentally determined. |

#### PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

#### BACKGROUND

Disrupted in schizophrenia 1 (DISC1) is a 100 kDa cytoplasmic scaffold protein that is associated with the development of schizophrenia, bipolar disorder, and recurrent major depression. It plays a role in post-synaptic density development and neurogenesis as well as centrosome and microtubule dynamics. DISC1 interacts with a range of intracellular proteins including Kinesin 1, NDE1, PDE4, GSK-3 beta, GRB2, PACAP, RAC1, TNK1, and FEZ1. It contains four coiled-coil domains (aa 366-394, aa 452-505, aa 602-666, and aa 802-830) which mediate the assembly of DISC1 into a variety of multimers. DISC1 multimerization and its ability to interact with various binding partners are regulated by post-translational modifications and proteolysis. Alternate splicing generates additional isoforms of human DISC1 that are truncated before the first or following the third coiled coil domain. Within aa 101-260, human DISC1 shares approximately 43% aa sequence identity with mouse and rat DISC1.

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