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Performance guaranteed

DISC1 Polyclonal Antibody, DyLight™ 650

Catalog Number **PA5-22837**

Product data sheet

Details	
Size	100 µL
Host/Isotope	Rabbit / IgG
Class	Polyclonal
Type	Antibody
Immunogen	A synthetic peptide made to an internal region (within residues 400-500) of the rat DISC1 protein.
Conjugate	DyLight™ 650
Form	Liquid
Concentration	0.85 mg/mL
Purification	Antigen affinity chromatography
Storage buffer	50mM sodium borate
Contains	no preservative
Storage Conditions	4° C, store in dark

Species Reactivity	
Species reactivity	Human, Mouse, Rat

Tested Applications	Dilution *
Immunohistochemistry (Frozen) (IHC (F))	2.5-5.0 µg/mL
Immunohistochemistry (Paraffin) (IHC (P))	2.5-5 µg/mL
Immunocytochemistry (ICC/IF)	Assay-Dependent

* Suggested working dilutions are given as a guide only. It is recommended that the user titrate the product for use in their own experiment using appropriate negative and positive controls.

Product specific information

The theoretical molecular weight of DISC1 is ~90 kDa. Due to alternative splicing, DISC1 may also run at ~75 and 100 kDa. Suggested positive control: human brain sections (neurons and glia).

Background/Target Information

DISC1 (Disrupted in Schizophrenia 1) is a multifunctional protein that interacts with multiple proteins of the centrosome and cytoskeletal system, and is involved in neuronal functions that are dependent upon proper cytoskeletal regulation, including neuronal migration, neurite architecture and intracellular transport. Regions of the brain which express DISC1 include the hippocampus, lateral septum, amygdala, cerebral cortex, cerebellum and paraventricular hypothalamus, and loss of DISC1 function results in differences in structural organization.The DISC1 gene locus 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, 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. 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. 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.

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