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Anti-DISC1 Antibody

Catalog # ABO11329

Product Information

Application	WB
Primary Accession	Q9NRI5
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Disrupted in schizophrenia 1 protein(DISC1) detection. Tested with WB in Human.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	27185
Other Names	Disrupted in schizophrenia 1 protein, DISC1, KIAA0457
Calculated MW	93611
Application Details	Western blot, 0.1-0.5 □g/ml, Human
Subcellular Localization	Cytoplasm. Cytoplasm, cytoskeleton. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Cell junction, synapse, postsynaptic cell membrane, postsynaptic density . Colocalizes with NDEL1 in the perinuclear region and the centrosome (By similarity). Localizes to punctate cytoplasmic foci which overlap in part with mitochondria. Colocalizes with PCNT at the centrosome. .
Tissue Specificity	Ubiquitous. Highly expressed in the dentate gyrus of the hippocampus. Also expressed in the temporal and parahippocampal cortices and cells of the white matter. .
Source	Eukaryota
Protein Name	Disrupted in schizophrenia 1 protein
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.
Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human DISC1(74-91aa EESHHSESRARQCGLDSR).
Purification	Immunogen affinity purified.

Cross Reactivity	No cross reactivity with other proteins
Storage	At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.

Protein Information

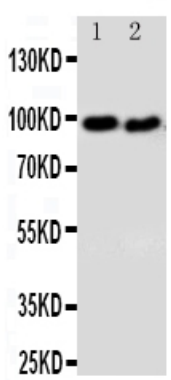
Name	DISC1 (HGNC:2888)
Synonyms	KIAA0457
Function	Involved in the regulation of multiple aspects of embryonic and adult neurogenesis (PubMed:19303846, PubMed:19502360). Required for neural progenitor proliferation in the ventrical/subventrical zone during embryonic brain development and in the adult dentate gyrus of the hippocampus (By similarity). Participates in the Wnt-mediated neural progenitor proliferation as a positive regulator by modulating GSK3B activity and CTNNB1 abundance (PubMed:19303846). Plays a role as a modulator of the AKT-mTOR signaling pathway controlling the tempo of the process of newborn neurons integration during adult neurogenesis, including neuron positioning, dendritic development and synapse formation (By similarity). Inhibits the activation of AKT-mTOR signaling upon interaction with CCDC88A (By similarity). Regulates the migration of early-born granule cell precursors toward the dentate gyrus during the hippocampal development (PubMed:19502360). Inhibits ATF4 transcription factor activity in neurons by disrupting ATF4 dimerization and DNA-binding (By similarity). Plays a role, together with PCNT, in the microtubule network formation (PubMed:18955030).
Cellular Location	Cytoplasm. Cytoplasm, cytoskeleton Mitochondrion. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Postsynaptic density {ECO:0000250|UniProtKB:Q811T9}. Note=Colocalizes with NDEL1 in the perinuclear region and the centrosome (By similarity). Localizes to punctate cytoplasmic foci which overlap in part with mitochondria (PubMed:12506198, PubMed:15797709). Colocalizes with PCNT at the centrosome (PubMed:18955030). {ECO:0000250|UniProtKB:Q811T9, ECO:0000269|PubMed:12506198, ECO:0000269|PubMed:15797709, ECO:0000269|PubMed:18955030}
Tissue Location	Ubiquitous. Highly expressed in the dentate gyrus of the hippocampus. Also expressed in the temporal and parahippocampal cortices and cells of the white matter.

Background

DISC1(Disrupted in Schizophrenia 1), is a protein that is encoded by the DISC1 gene in humans. Ma et al.(2002) determined that the mouse Disc1 gene maps to chromosome 8 in a region with homology of synteny to human chromosome 1q42. Ozeki et al.(2003) demonstrated that rodent Disc1 expression displayed pronounced developmental regulation, with the highest levels in late embryonic life during development of the cerebral cortex. Millar et al.(2005) showed that DISC1 interacts with the UCR2 domain of phosphodiesterase-4B, implicated in susceptibility to schizophrenia, and that elevation of cellular cAMP leads to dissociation of PDE4B from DISC1 and in increase in PDE4B activity.

Images

Anti-DISC1 antibody, ABO11329, Western blottingLane 1:



U87 Cell LysateLane 2: SHG Cell Lysate