

## **DISC1 Antibody (C-Terminus)**

Rabbit Polyclonal Antibody Catalog # ALS12357

### **Specification**

# **DISC1 Antibody (C-Terminus) - Product Information**

Application IHC
Primary Accession O9NRI5
Reactivity Human
Host Rabbit
Clonality Polyclonal
Calculated MW 94kDa KDa

#### **DISC1** Antibody (C-Terminus) - Additional Information

#### **Gene ID 27185**

#### **Other Names**

Disrupted in schizophrenia 1 protein, DISC1, KIAA0457

### Target/Specificity

synthetic peptide corresponding to C-terminal residues of human DISC1 (Disrupted in schizophrenia 1 protein)

#### **Reconstitution & Storage**

+4°C or -20°C, Avoid repeated freezing and thawing.

# **Precautions**

DISC1 Antibody (C-Terminus) is for research use only and not for use in diagnostic or therapeutic procedures.

## **DISC1 Antibody (C-Terminus) - Protein Information**

Name DISC1 (HGNC:2888)

Synonyms KIAA0457

#### **Function**

Involved in the regulation of multiple aspects of embryonic and adult neurogenesis (PubMed:<a href="http://www.uniprot.org/citations/19502360" target="\_blank">19502360</a>, PubMed:<a href="http://www.uniprot.org/citations/19303846" target="\_blank">19303846</a>). 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:<a href="http://www.uniprot.org/citations/19303846" target="\_blank">19303846</a>). 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:<a href="http://www.uniprot.org/citations/19502360" target="\_blank">19502360</a>). 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:<a href="http://www.uniprot.org/citations/18955030" target="blank">18955030</a>).

#### **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**

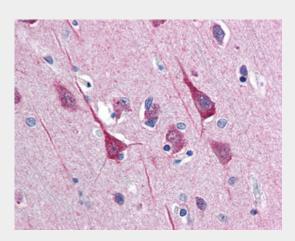
Ubiquitous. Highly expressed in the dentate gyrus of the hippocampus. Also expressed in the temporal and parahippocampal cortices and cells of the white matter.

### **DISC1 Antibody (C-Terminus) - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- <u>Immunofluorescence</u>
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

### **DISC1 Antibody (C-Terminus) - Images**



Anti-DISC1 antibody IHC of human brain, cortex.

## DISC1 Antibody (C-Terminus) - Background

Involved in the regulation of multiple aspects of embryonic and adult neurogenesis. Required for





neural progenitor proliferation in the ventrical/subventrical zone during embryonic brain development and in the adult dentate gyrus of the hippocampus. Participates in the Wnt-mediated neural progenitor proliferation as a positive regulator by modulating GSK3B activity and CTNNB1 abundance. 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. Inhibits the activation of AKT-mTOR signaling upon interaction with CCDC88A. Regulates the migration of early-born granule cell precursors toward the dentate gyrus during the hippocampal development. Plays a role, together with PCNT, in the microtubule network formation.

## **DISC1 Antibody (C-Terminus) - References**

Millar J.K., et al. Hum. Mol. Genet. 9:1415-1423(2000). Taylor M.S., et al. Genomics 81:67-77(2003). Seki N., et al. DNA Res. 4:345-349(1997). Nakata K., et al. Proc. Natl. Acad. Sci. U.S.A. 106:15873-15878(2009). Gregory S.G., et al. Nature 441:315-321(2006).