

DISC1 Antibody

Rabbit mAb Catalog # AP92283

Product Information

Application WB, IHC, IF, FC, ICC, IP, IHF

Primary Accession Q9NRI5

Reactivity Rat, Human, Mouse

Clonality Monoclonal

Other Names C1orf136; DISC1; KIAA0457; RP4-730B13.1; SCZD9;

IsotypeRabbit IgGHostRabbitCalculated MW93611

Additional Information

Dilution WB 1:500~1:2000 IHC 1:50~1:200 ICC/IF 1:50~1:200 IP 1:50

Purification Affinity-chromatography

Immunogen A synthesized peptide derived from human DISC1

DescriptionInvolved 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.

Storage Condition and Buffer Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium

azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term.

Avoid freeze / thaw cycle.

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).

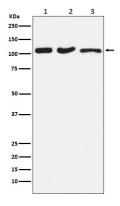
Cellular Location

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.

Images



Western blot analysis of DISC1 expression in (1) HeLa cell lysate; (2) RAW264.7 cell lysate; (3) PC-12 cell lysate.

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