

Product datasheet

Anti-DISC1 antibody [EPR14684] α b192258

Recombinant RabMAb

★★★★★ [1 Abreviews](#) [4 References](#) [9 Images](#)

Overview

Product name	Anti-DISC1 antibody [EPR14684]
Description	Rabbit monoclonal [EPR14684] to DISC1
Host species	Rabbit
Specificity	This antibody has cross-reactivity with GST, so we suggest not to use this antibody for detecting protein with a GST-tag.
Tested applications	Suitable for: Flow Cyt (Intra), WB, IP, ICC/IF, IHC-P
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	Molt-4, SH-SY5Y, U87-MG, C6, RAW264.7, PC12, NIH/3T3 and HeLa whole cell lysate (ab150035). Human brain, mouse brain and human adenocarcinoma of endometrium tissue. Neuro-2a cells.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	<p>pH: 7.2</p> <p>Preservative: 0.01% Sodium azide</p> <p>Constituents: 40% Glycerol (glycerin, glycerine), 59% PBS, 0.05% BSA</p>
Purity	Protein A purified
Clonality	Monoclonal

Clone number EPR14684

Isotype IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab192258 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt (Intra)		1/1000.
WB	★★★★★ (1)	1/1000 - 1/10000. Predicted molecular weight: 94 kDa.
IP		1/60.
ICC/IF		1/1000.
IHC-P		1/200 - 1/500. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Target

Function Involved in the regulation of multiple aspects of embryonic and adult neurogenesis. Required for neural progenitor proliferation in the ventricular/subventricular 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.

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.

Involvement in disease Note=A chromosomal aberration involving DISC1 segregates with schizophrenia and related psychiatric disorders in a large Scottish family. Translocation t(1;11)(q42.1;q14.3). The truncated DISC1 protein produced by this translocation is unable to interact with ATF4, ATF5 and NDEL1. Genetic variation in DISC1 is associated with susceptibility to schizophrenia type 9 (SCZD9) [MIM:604906]. A complex, multifactorial psychotic disorder or group of disorders characterized by disturbances in the form and content of thought (e.g. delusions, hallucinations), in mood (e.g. inappropriate affect), in sense of self and relationship to the external world (e.g. loss of ego boundaries, withdrawal), and in behavior (e.g. bizarre or apparently purposeless behavior). Although it affects emotions, it is distinguished from mood disorders in which such disturbances are primary. Similarly, there may be mild impairment of cognitive function, and it is distinguished from the dementias in which disturbed cognitive function is considered primary. Some patients manifest schizophrenic as well as bipolar disorder symptoms and are often given the diagnosis of

schizoaffective disorder.

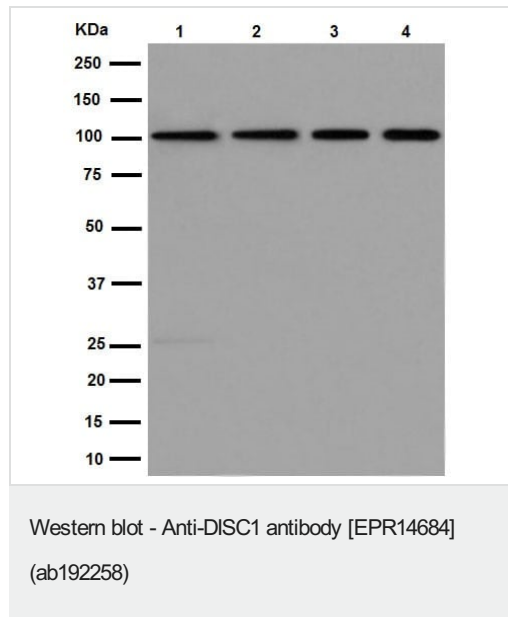
Developmental stage

Expression rises within the dentate gyrus and temporal cortex from the neonatal period to infancy, declines markedly in adolescence, and declines further with aging.

Cellular localization

Cytoplasm. Cytoplasm > cytoskeleton. Cytoplasm > cytoskeleton > 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.

Images



All lanes : Anti-DISC1 antibody [EPR14684] (ab192258) at 1/10000 dilution

Lane 1 : MOLT-4 cell lysate

Lane 2 : SH-SY5Y cell lysate

Lane 3 : U87-MG cell lysate

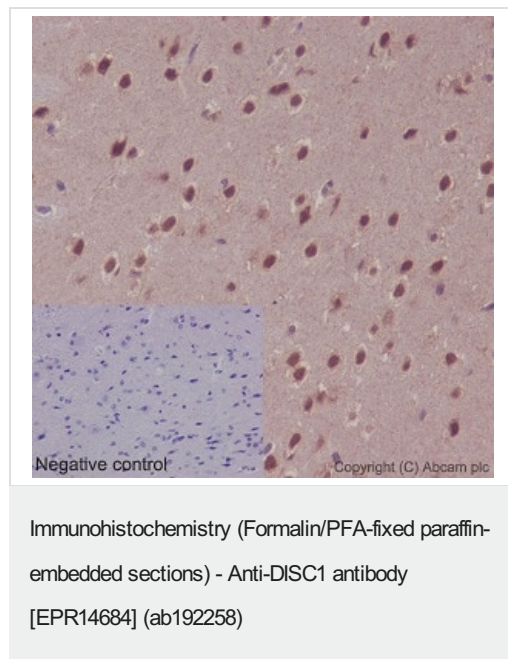
Lane 4 : HeLa cell lysate

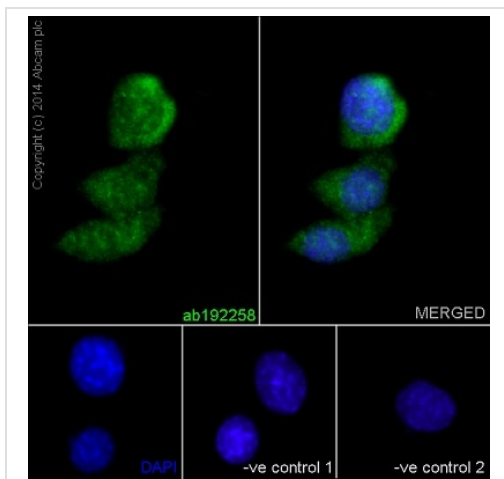
Lysates/proteins at 20 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

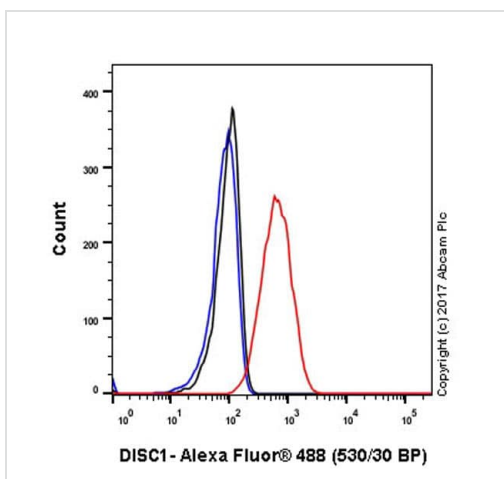
Predicted band size: 94 kDa





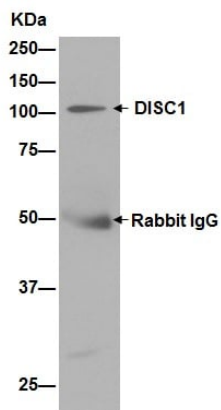
Immunocytochemistry/ Immunofluorescence - Anti-DISC1 antibody [EPR14684] (ab192258)

Immunofluorescent analysis of 4% formaldehyde fixed Neuro-2a cells labeling DISC1 using ab192258 at a 1/100 dilution. A Goat anti rabbit IgG (Alexa Fluor®488) **ab150077** was used as the secondary at a 1/200 dilution. Permeabilized using 0.1% Triton X-100. Counterstained with DAPI. The two negative controls: 1. Primary ab concentration (anti-DISC1) is 1:1000 dilution, Secondary ab (Goat anti mouse IgG (Alexa Fluor®594)) is 1:500 dilution; 2. Primary ab concentration (anti-DISC1) is 1:1000 dilution, Secondary ab (Goat anti mouse IgG (Alexa Fluor®594)) is 1:500 dilution.



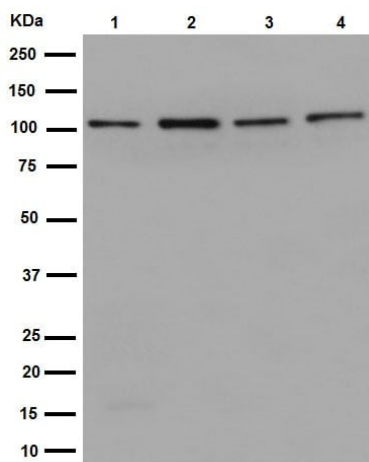
Flow Cytometry (Intracellular) - Anti-DISC1 antibody [EPR14684] (ab192258)

Intracellular Flow Cytometry analysis of Neuro-2a (Mouse neuroblastoma neuroblast) cells labeling DISC1 (red) with purified ab192258 at a 1/1000 dilution (1ug/mL). Cells were fixed with 4% paraformaldehyde and permeabilized with 90% methanol. A goat anti rabbit IgG (Alexa Fluor® 488) (**ab150077**) was used as the secondary antibody at a 1/2000 dilution. Black - Rabbit monoclonal IgG (Black) (**ab172730**). Blue (unlabeled control) - Cell without incubation with primary antibody and secondary antibody (Blue).



Immunoprecipitation - Anti-DISC1 antibody
[EPR14684] (ab192258)

Lysate from U87-MG cells was immunoprecipitated with ab192258 at a 1/60 dilution. For the subsequent blot, ab192258 used at a 1/1000 dilution with Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at a 1/1000 dilution for the secondary. Blocking/ Dilution buffer: 5% NFDM/TBST.



Western blot - Anti-DISC1 antibody [EPR14684]
(ab192258)

All lanes : Anti-DISC1 antibody [EPR14684] (ab192258) at 1/1000 dilution

Lane 1 : C6 cell lysate

Lane 2 : RAW264.7 cell lysate

Lane 3 : PC-12 cell lysate

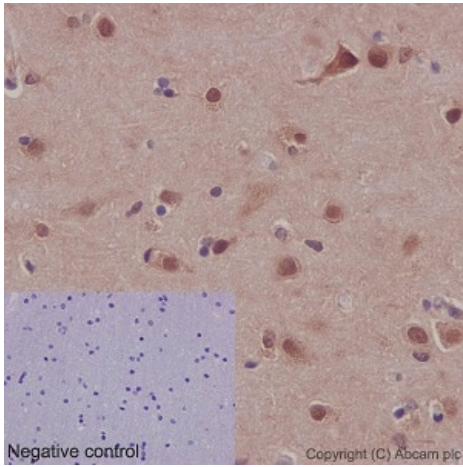
Lane 4 : NIH/3T3 cell lysate

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

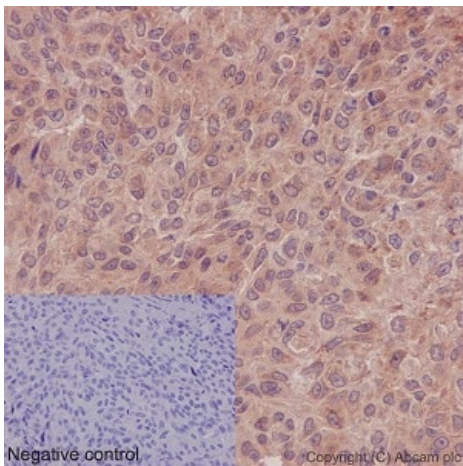
Predicted band size: 94 kDa



Immunohistochemical analysis of paraffin embedded human brain tissue sections labeling DISC1 using ab192258 at a 1/500 dilution. A ready to use HRP Polymer for Rabbit IgG was used as the secondary. Hematoxylin counterstain.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-DISC1 antibody [EPR14684] (ab192258)

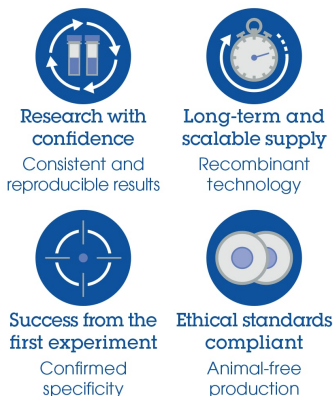


Immunohistochemical analysis of paraffin embedded Human adenocarcinoma of endometrium tissue sections labeling DISC1 using ab192258 at a 1/500 dilution. A ready to use HRP Polymer for Rabbit IgG was used as the secondary. Hematoxylin counterstain.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-DISC1 antibody [EPR14684] (ab192258)

Why choose a recombinant antibody?



Anti-DISC1 antibody [EPR14684] (ab192258)

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