

Product datasheet

Anti-DISC1 antibody [EPR14684] - BSA and Azide free
ab245775

Recombinant RabMAb

7 Images

Overview

Product name	Anti-DISC1 antibody [EPR14684] - BSA and Azide free
Description	Rabbit monoclonal [EPR14684] to DISC1 - BSA and Azide free
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: ICC/IF, IP, WB, Flow Cyt, IHC-P
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Recombinant fragment within Human DISC1 aa 1-100. The exact sequence is proprietary. Database link: Q9NRI5
Positive control	IHC-P: Human brain, mouse brain and human adenocarcinoma of endometrium tissue. ICC/IF: Neuro-2a cells. Flow Cyt: Neuro-2a cells. IP: U87-MG cell lysate.
General notes	Ab245775 is the carrier-free version of ab192258 . This format is designed for use in antibody labeling, including fluorochromes, metal isotopes, oligonucleotides, enzymes.

Our [carrier-free formats](#) are supplied in a buffer free of BSA, sodium azide and glycerol for higher conjugation efficiency.

Use our [conjugation kits](#) for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

ab245775 is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm.

Maxpar® is a trademark of Fluidigm Canada Inc.

This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free production

For more information [see here](#).

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit

monoclonal antibodies. For details on our patents, please refer to [RabMAb® patents](#).

Reproducibility is key to advancing scientific discovery and accelerating scientists' next breakthrough.

Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.

We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications & species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise™ guarantee.

In preparation for this, we have started to update the applications & species that this product is Abpromise guaranteed for.

We are also updating the applications & species that this product has been "predicted to work with," however this information is not covered by our Abpromise guarantee.

Applications & species from publications and Abreviews that have not been tested in our own labs or in those of our suppliers are not covered by the Abpromise guarantee.

Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, as well as customer reviews and Q&As.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR14684
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab245775** 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
ICC/IF		Use at an assay dependent concentration.
IP		Use at an assay dependent concentration.
WB		Use at an assay dependent concentration. Predicted molecular weight: 94 kDa.

Application	Abreviews	Notes
Flow Cyt		Use at an assay dependent concentration.
IHC-P		Use at an assay dependent concentration. 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.

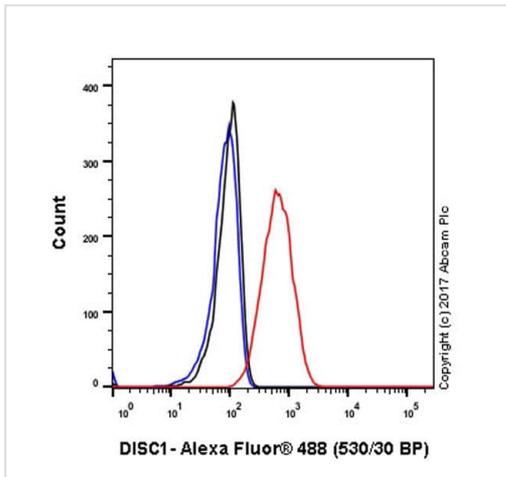
Developmental stage

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.

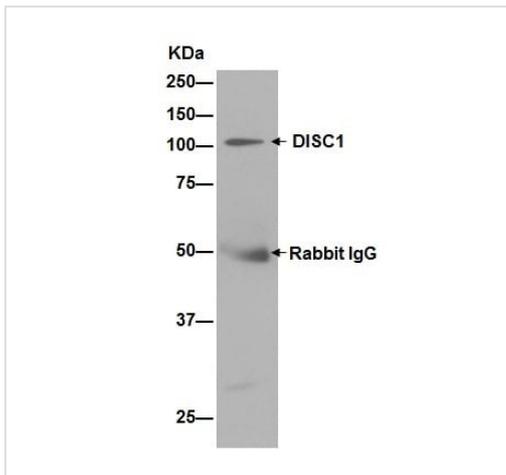
Images



Flow Cytometry - Anti-DISC1 antibody [EPR14684] - BSA and Azide free (ab245775)

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).

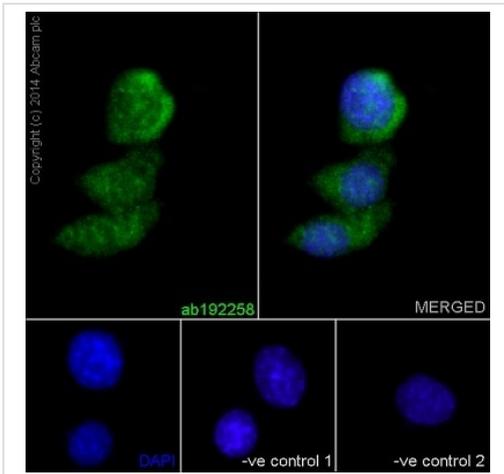
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol and sodium azide ([ab192258](#)).



Immunoprecipitation - Anti-DISC1 antibody [EPR14684] - BSA and Azide free (ab245775)

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.

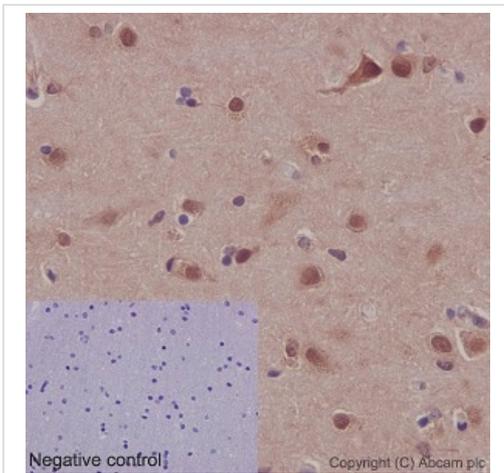
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol and sodium azide ([ab192258](#)).



Immunocytochemistry/ Immunofluorescence - Anti-DISC1 antibody [EPR14684] - BSA and Azide free (ab245775)

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.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol and sodium azide ([ab192258](#)).

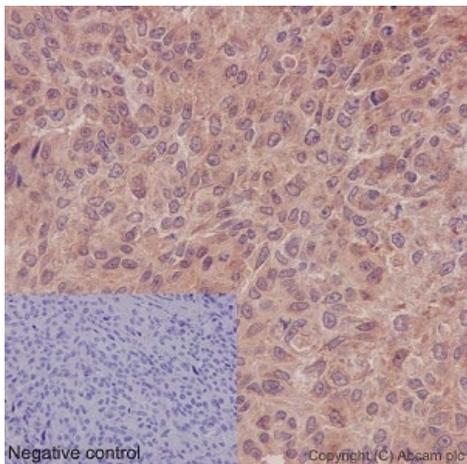


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-DISC1 antibody [EPR14684] - BSA and Azide free (ab245775)

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.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol and sodium azide ([ab192258](#)).

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

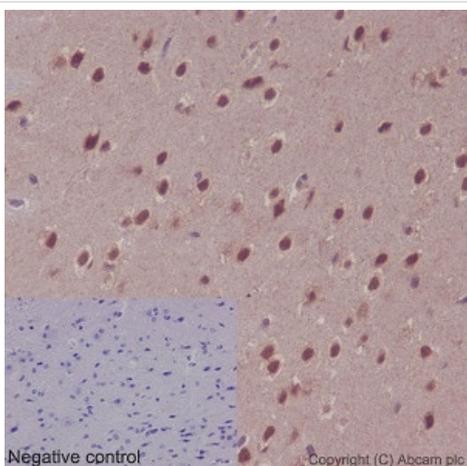


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-DISC1 antibody [EPR14684] - BSA and Azide free (ab245775)

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.

This data was developed using the same antibody clone in a different buffer formulation containing PBS#44; BSA#44; glycerol and sodium azide ([ab192258](#))

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] - BSA and Azide free (ab245775)

Immunohistochemical analysis of paraffin embedded mouse 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.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol and sodium azide ([ab192258](#)).

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

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Anti-DISC1 antibody [EPR14684] - BSA and Azide free (ab245775)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors