

## Product datasheet

# Anti-DC-SIGN antibody [EPR22395-52] ab245189

Recombinant RabMAb

4 Images

### Overview

<b>Product name</b>	Anti-DC-SIGN antibody [EPR22395-52]
<b>Description</b>	Rabbit monoclonal [EPR22395-52] to DC-SIGN
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> Flow Cyt, WB, ICC/IF <b>Unsuitable for:</b> IHC-P or IP
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	Recombinant fragment within Human DC-SIGN aa 50 to the C-terminus. The exact sequence is proprietary. Database link: <a href="#">Q9NNX6</a>
<b>Positive control</b>	ICC/IF: THP-1 cells. Flow: THP-1 cells.
<b>General notes</b>	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> <li>- High batch-to-batch consistency and reproducibility</li> <li>- Improved sensitivity and specificity</li> <li>- Long-term security of supply</li> <li>- Animal-free production</li> </ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a>.</p> <p>Reproducibility is key to advancing scientific discovery and accelerating scientists' next breakthrough.</p> <p>Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.</p> <p>We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications &amp; species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise<sup>™</sup> guarantee.</p> <p>In preparation for this, we have started to update the applications &amp; species that this product is Abpromise guaranteed for.</p> <p>We are also updating the applications &amp; species that this product has been "predicted to work with," however this information is not covered by our Abpromise guarantee.</p>

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

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<b>Form</b>	Liquid
<b>Storage instructions</b>	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.
<b>Storage buffer</b>	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR22395-52
<b>Isotype</b>	IgG

## Applications

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Our [Abpromise guarantee](#) covers the use of **ab245189** 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		1/60.
WB		Use at an assay dependent concentration. Predicted molecular weight: 46 kDa. Not Recommended
ICC/IF		1/100.
<b>Application notes</b>		Is unsuitable for IHC-P or IP.

## Target

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<b>Function</b>	Pathogen-recognition receptor expressed on the surface of immature dendritic cells (DCs) and involved in initiation of primary immune response. Thought to mediate the endocytosis of pathogens which are subsequently degraded in lysosomal compartments. The receptor returns to the cell membrane surface and the pathogen-derived antigens are presented to resting T-cells via MHC class II proteins to initiate the adaptive immune response. Probably recognizes in a calcium-dependent manner high mannose N-linked oligosaccharides in a variety of pathogen antigens, including HIV-1 gp120, HIV-2 gp120, SIV gp120, ebolavirus glycoproteins, cytomegalovirus gB, HCV E2, dengue virus gE, Leishmania pifanoi LPG, Lewis-x antigen in Helicobacter pylori LPS,
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mannose in *Klebsiella pneumoniae* LPS, di-mannose and tri-mannose in *Mycobacterium tuberculosis* ManLAM and Lewis-x antigen in *Schistosoma mansoni* SEA.

On DCs it is a high affinity receptor for ICAM2 and ICAM3 by binding to mannose-like carbohydrates. May act as a DC rolling receptor that mediates transendothelial migration of DC precursors from blood to tissues by binding endothelial ICAM2. Seems to regulate DC-induced T-cell proliferation by binding to ICAM3 on T-cells in the immunological synapse formed between DC and T-cells.

### Tissue specificity

Predominantly expressed in dendritic cells and in DC-residing tissues. Also found in placental macrophages, endothelial cells of placental vascular channels, peripheral blood mononuclear cells, and THP-1 monocytes.

### Sequence similarities

Contains 1 C-type lectin domain.

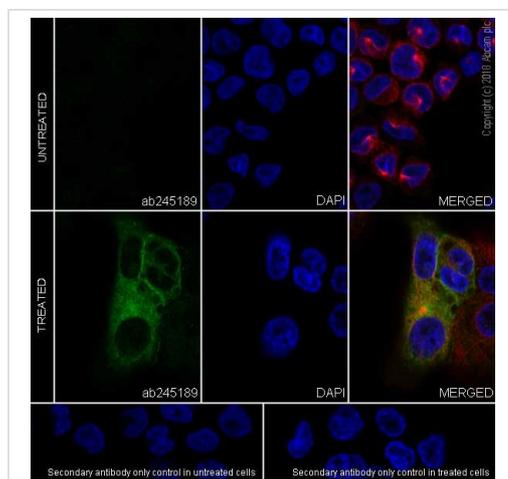
### Domain

The tandem repeat domain, also called neck domain, mediates oligomerization.

### Cellular localization

Secreted and Cell membrane.

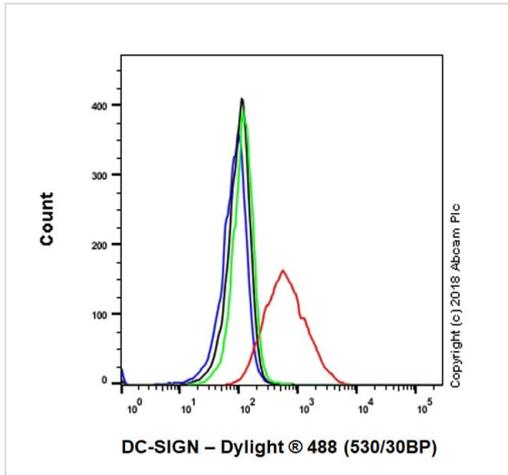
## Images



Immunocytochemistry/ Immunofluorescence - Anti-DC-SIGN antibody [EPR22395-52] (ab245189)

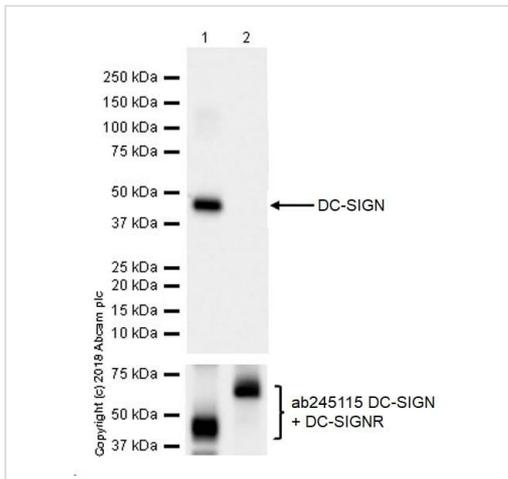
Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized THP-1 (human monocytic leukemia cell line) cells labeling DC-SIGN using ab245189 at 1/100 dilution, followed by a AlexaFluor<sup>®</sup>488 Goat anti-Rabbit secondary (ab150077) at 1/1000 dilution (green). Confocal image showing cytoplasmic and membranous staining in THP-1 cells treated with 10 ng/ml PMA for 18h, then serum starved for 8 hours, then 10 ng/ml PMA for 6 hours and add 1000 U IL4 for 2 hours, then add 10% serum for another 22 hours. DC-SIGN expression is induced by PMA plus IL4 in THP-1 (PMID: 15070901; PMID: 22675249). Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor<sup>®</sup> 594) (ab195889) was used to stain tubulin (red). The nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (ab150077) at 1/1000 dilution.



Flow Cytometry - Anti-DC-SIGN antibody  
[EPR22395-52] (ab245189)

Flow cytometric analysis of unfixed non-permeabilized THP-1 (human monocytic leukemia cell line) cells treated with 10 ng/ml PMA for 18 hours, then serum starved for 8 hours, then 10 ng/ml PMA for 6 hours and add 1000 U IL4 for 2 hours, then add 10% serum for another 22 hours. DC-SIGN is labeled with ab245189 at 1/60 dilution in treated (red) and untreated cells (green) as compared to a Rabbit monoclonal IgG (ab172730, black) and an unlabelled control (cells without incubation with primary antibody and secondary antibody, blue). A Goat anti rabbit IgG (Dylight® 488, ab98462) was used as the secondary antibody at 1/2000 dilution. Gated on viable cells. DC-SIGN expression is induced by PMA plus IL4 in THP-1 (PMID: 15070901; PMID: 22675249).



Western blot - Anti-DC-SIGN antibody [EPR22395-52] (ab245189)

**All lanes :** Anti-DC-SIGN antibody [EPR22395-52] (ab245189) at 1/1000 dilution

**Lane 1 :** Recombinant Human DC-SIGN/CD209 protein (aa59-404) 20 ng

**Lane 2 :** Recombinant Human DC-SIGNR/CD299 Fc chimeric protein (aa73-376) 20 ng

**Secondary**

**All lanes :** Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

**Predicted band size:** 46 kDa

**Exposure time:** 8 seconds

Blocking/diluting buffer and concentration: 5% NFDm/TBST

### 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-DC-SIGN antibody [EPR22395-52] (ab245189)

**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

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- 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

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