

## 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, ICC/IF <b>Unsuitable for:</b> IHC-P, IP or WB
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
<b>Positive control</b>	ICC/IF: THP-1 cells. Flow: THP-1 cells.
<b>General notes</b>	This product is a recombinant monoclonal antibody, which offers several advantages including: <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> For more information <a href="#">see here</a> . 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> .

#### Properties

<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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**The Abpromise guarantee** 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.
ICC/IF		1/100.

**Application notes** Is unsuitable for IHC-P,IP or WB.

## Target

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**Function** 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, 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.

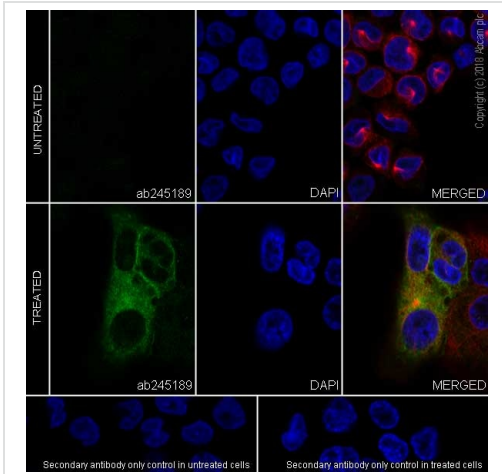
**Domain** The tandem repeat domain, also called neck domain, mediates oligomerization.

**Cellular localization** Secreted and Cell membrane.

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## Images

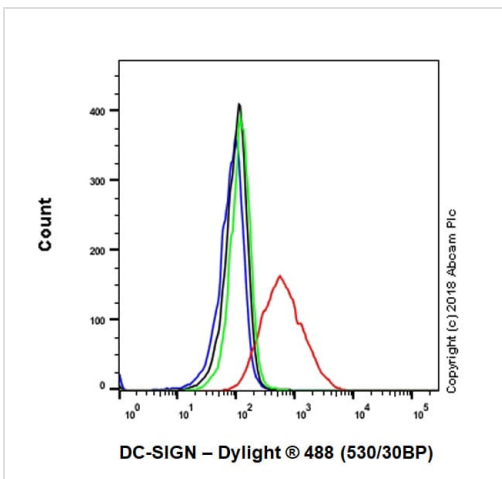
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Immunocytochemistry/ Immunofluorescence - Anti-DC-SIGN antibody [EPR22395-52] (ab245189)

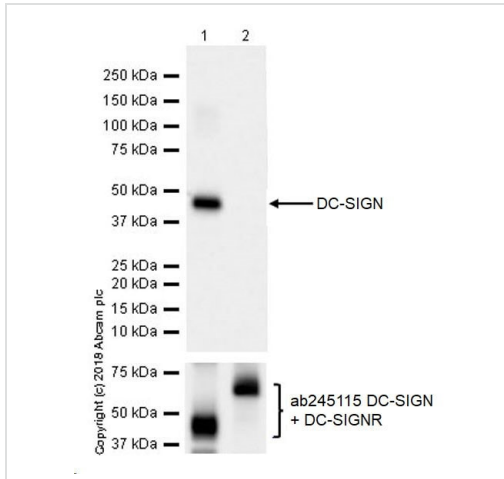
Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized THP-1 (human monocytic leukemia cell line) cells labeling DC-SIGN using ab245189 at 1/100 dilution, followed by a AlexaFluor<sup>®</sup>488 Goat anti-Rabbit secondary (**ab150077**) at 1/1000 dilution (green). Confocal 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<sup>®</sup> 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% NFD/MTBST

Why choose a recombinant antibody?

 <p><b>Research with confidence</b> Consistent and reproducible results</p>	 <p><b>Long-term and scalable supply</b> Recombinant technology</p>
 <p><b>Success from the first experiment</b> Confirmed specificity</p>	 <p><b>Ethical standards compliant</b> Animal-free production</p>

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

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

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