abcam

ab245200

Anti-DC-SIGN antibody [EPR22395-52] - BSA and Azide free

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR22395-52
Purification technique	Affinity purification Protein A
Concentration	0.924 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Not recommended

Species	Human
Dilution info	-

Notes	-

Flow Cyt

Tested

Species	Human
Dilution info	-
Notes	-

WB

Not recommended

Species	Human
Dilution info	-
Notes	Not Reccomended

IHC-P

Not recommended

Species	Human
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

Target data

See full target information CD209

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. On dendritic cells (DCs) it is a high affinity receptor for ICAM2 and ICAM3 by binding to mannose-like carbohydrates (PubMed:10721994, PubMed:10721995, PubMed:11017109, PubMed:12574325). May act as a DC rolling receptor that mediates transendothelial migration of DC presursors from blood to tissues by binding endothelial ICAM2 (PubMed:11017109). Forms a first contact between DC and resting T cell, througth ICAM3 binding, facilitating the downstream DC-T cell clustering process and DC-induced proliferation of resting T Cells (PubMed:10721994, PubMed:10721995). (Microbial infection) Acts as an attachment receptor for HIV-1 and HIV-2. (Microbial infection) Acts as an attachment receptor for Ebolavirus. (Microbial infection) Acts as an attachment receptor for Cytomegalovirus. (Microbial infection) Acts as an attachment receptor for HCV. (Microbial infection) Acts as an attachment receptor for Dengue virus. (Microbial infection) Acts as an attachment receptor for Measles virus. (Microbial infection) Acts as an attachment receptor for Herpes simplex virus 1. (Microbial infection) Acts as an attachment receptor for Influenzavirus A. (Microbial infection) Acts as an attachment receptor for SARS-CoV. (Microbial infection) Acts as an attachment receptor for Japanese encephalitis virus. (Microbial infection) Acts as an attachment receptor for Lassa virus (PubMed:23966408). Acts as an attachment receptor for Marburg virusn. (Microbial infection) Acts as an attachment receptor for Respiratory syncytial virus. (Microbial infection) Acts as an attachment receptor for Rift valley fever virus and uukuniemi virus. (Microbial infection) Acts as an attachment receptor for West-nile virus. (Microbial infection) Probably recognizes in a calcium-dependent manner high mannose N-linked oligosaccharides in a variety of bacterial pathogen antigens, including Leishmania pifanoi LPG, Lewis-x antigen in Helicobacter pylori LPS, mannose in Klebsiella pneumonae LPS, di-mannose and tri-mannose in Mycobacterium tuberculosis ManLAM and Lewis-x antigen in Schistosoma mansoni SEA (PubMed:16379498). Recognition of M.tuberculosis by dendritic cells occurs partially via this molecule (PubMed:16092920, PubMed:21203928).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab245200 is the carrier-free version of ab245189.

Patented technology

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?

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 batch production

For more information, read more on recombinant antibodies.

Conjugation ready

Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

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.

Compatibility

This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

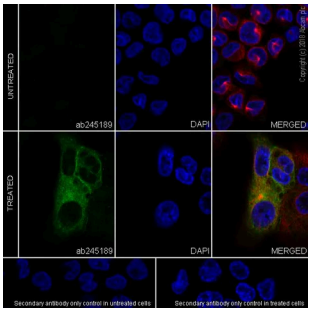
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

2 product images

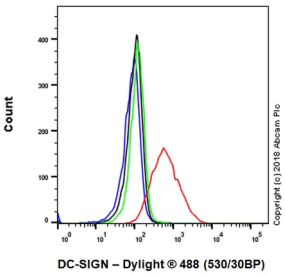


Immunocytochemistry/ Immunofluorescence - Anti-DC-SIGN antibody [EPR22395-52] - BSA and Azide free (ab245200)

DC-SIGN Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-DC-SIGN antibody

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®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® 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.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab245189).



Flow Cytometry - Anti-DC-SIGN antibody [EPR22395-52] - BSA and Azide free (ab245200)

DC-SIGN Flow Cytometry staining using rabbit Anti-DC-SIGN antibody

Flow cytometric analysis of 4% paraformaldehyde-fixed 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).
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab245189).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.