abcam

ab37220

Anti-CD209B/DC-SIGNR1 antibody [ER-TR9]

Key facts

Isotype	IgM
Host species	Rat
Storage buffer	Preservative: 0.02% Sodium azide Constituents: Tissue culture supernatant
Form	Liquid
Clonality	Monoclonal
Immunogen	Cell preparation containing Cd209a protein. The exact immunogen used to generate this antibody is proprietary information. Database link Q91ZX1
Clone number	ER-TR9
Purity	Tissue culture supernatant

Reactivity data

Flow Cyt

Tested

Species	Mouse
Dilution info	2 µg for 10^6 Cells
Notes	ab35768 - Rat monoclonal IgM, is suitable for use as an isotype control with this antibody.

IHC-Fr

Expected

Species	Mouse
Dilution info	Use at an assay dependent concentration.
Notes	-

FuncS (Neut/Block)

Expected

Species	Mouse
Dilution info	-
Notes	Dilutions have to be made according to the amounts of SIGN-R1 to be inactivated.

Target data

See full target information Cd209a

Function	Probable pathogen-recognition receptor. May mediate the endocytosis of pathogens which are subsequently degraded in lysosomal compartments. May recognize in a calcium-dependent manner high mannose N-linked oligosaccharides in a variety of pathogen antigens. On dendritic cells (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 presursors from blood to tissues by binding endothelial ICAM2. 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.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	CD209B also known as DC-SIGNR1 is a C-type lectin receptor with a molecular mass of about 45 kDa. This receptor is similar in structure to CD209A another member of the same gene family. CD209B is mainly expressed on macrophages and dendritic cells which are critical components of the immune system. This receptor plays a role in the immune response by recognizing and binding to specific carbohydrate structures on the surface of various pathogens.
Biological function summary	CD209B functions as part of a broader set of protein interactions involved in pathogen recognition and clearance. It acts as a pattern recognition receptor and is involved in initiating immune responses. Although not part of a large complex CD209B shares functional similarities with other receptors like CD209A mediating defensive strategies against infections through binding to glycoprotein antigens on microbes.
Pathways	The receptor participates in the immune signaling networks that oversee pathogen recognition. It is vital within the innate immune pathway where it helps to stimulate adaptive immunity. CD209B engages with proteins such as Toll-like receptors which amplify immune responses against pathogens.
Associated diseases and disorders	CD209B has potential implications in infectious diseases and autoimmune disorders. Its ability to bind diverse pathogens makes it an important player in infections like HIV where it helps the virus gain entry into host cells. Additionally its interaction with proteins like mannose receptor suggests a role in diseases characterized by chronic inflammation. Understanding these interactions assists in developing interventions to modulate immune response in such conditions.

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

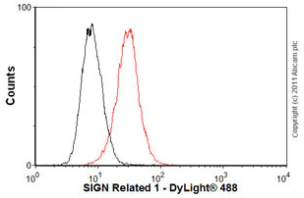
We do not recommend this combination. It is not covered by our product promise.

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.

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1 product image



Flow Cytometry - Anti-CD209B/DC-SIGNR1 antibody [ER-TR9] (ab37220)

CD209B/DC-SIGNR1 Flow Cytometry staining using rat Anti-CD209B/DC-SIGNR1 antibody

Overlay histogram showing SP0/2 cells stained with ab37220 (red line). The cells were fixed with 4% paraformaldehyde (10min) and incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab37220, 2µg/1x10^6 cells) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-rat IgG (H+L) (ab98386) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was rat IgM, kappa monoclonal [RTK2118] (ab35768, 2µg/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a positive signal in SP0/2 cells fixed with 80% methanol (5 min) used under the same conditions.
Please note that Abcam do not have any data for use of this antibody on non-fixed cells. We welcome any customer feedback.

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