abcam

ab325758

Anti-2B4 antibody [EPR30263-524] - 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	EPR30263-524
Purification technique	Affinity purification Protein A
Concentration	0.987 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt (Intra)

Tested

Species	Transfected cell line - Mouse
Dilution info	-

Notes	-

Expected

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

Flow Cyt

Tested

Species	Mouse
Dilution info	-
Notes	-

Not recommended

Species	Transfected cell line - Mouse
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Mouse
Dilution info	-
Notes	-

Not recommended

Species	Transfected cell line - Mouse
Dilution info	-
Notes	-

Target data

See full target information Cd244

Function	Heterophilic receptor of the signaling lymphocytic activation molecule (SLAM) family; its ligand is CD48. SLAM receptors triggered by homo- or heterotypic cell-cell interactions are modulating the activation and differentiation of a wide variety of immune cells and thus are involved in the regulation and interconnection of both innate and adaptive immune response. Activities are controlled by presence or absence of small cytoplasmic adapter proteins, SH2D1A/SAP and/or SH2D1B/EAT-2. Acts as activating natural killer (NK) cell receptor (PubMed:12734329, PubMed:19648922, PubMed:20962259, PubMed:8326140). Activating function implicates association with SH2D1A and FYN. Downstreaming signaling involves predominantly VAV1, and, to a lesser degree, INPP5D/SHIP1 and CBL. Signal attenuation in the absence of SH2D1A is proposed to be dependent on INPP5D and to a lesser extent PTPN6/SHP-1 and PTPN11/SHP-2. Stimulates NK cell cytotoxicity, production of IFN-gamma and granule exocytosis (PubMed:15169881, PubMed:15998796, PubMed:22683124, PubMed:8326140). Optimal expansion and activation of NK cells seems to be dependent on the engagement of CD244 with CD48 expressed on neighboring NK cells (PubMed:15905190). Regulation of NK cell activity by adapters SH2D1B and SH2D1B2 is reported conflictingly (PubMed:16127454, PubMed:16425036). Acts as costimulator in NK activation by enhancing signals by other NK receptors such as NCR3 and NCR1. At early stages of NK cell differentiation may function as an inhibitory receptor possibly ensuring the self-tolerance of developing NK cells (By similarity). Involved in the regulation of CD8(+) T-cell proliferation; expression on activated T-cells and binding to CD48 provides costimulatory-like function for neighboring T-cells (PubMed:11739483). Inhibits inflammatory responses in dendritic cells (DCs) (PubMed:25643613).

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

ab325758 is the carrier-free version of ab325752

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.

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.

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.

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.

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

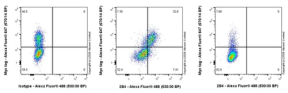
We do not recommend this combination. It is not covered by our product promise.

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.

6 product images



Flow Cytometry - Anti-2B4 antibody [EPR30263-524] - BSA and Azide free (ab325758)

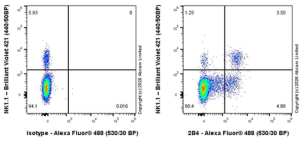
2B4 Flow Cytometry staining using rabbit Anti-2B4 antibody

This data was developed using ab325752, the same antibody clone in a different buffer formulation.

Flow cytometric analysis of 4% paraformaldehyde fixed 0.1% Tween-20 permeabilized 293T cells transfected with a mouse Cd244 expression vector containing a myc-His-tag® (Middle) 293T cells transfected with an empty expression vector containing a myc-His-tag® (Right) cells labelling 2B4 with ab325752 at 1/50000 dilution (0.001ug) / Middle and Right compared with a Rabbit monoclonal IgG (ab172730) / Left isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody).

Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/5000 dilution was used as the secondary antibody.

Cells were surface stained with isotype control or our antibody. Then fixed with 4% PFA for 10min followed by intracellularly stained with anti-myc tag conjugated to Alexa Fluor® 647.



Flow Cytometry - Anti-2B4 antibody [EPR30263-524] - BSA and Azide free (ab325758)

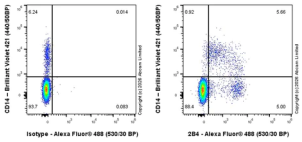
2B4 Flow Cytometry staining of Mouse spleen cell using rabbit Anti-2B4 antibody

This data was developed using ab325752, the same antibody clone in a different buffer formulation.

Flow cytometric analysis of Mouse spleen cell cells labelling 2B4 with ab325752 at 1/50 dilution (1ug) / Right compared with a Rabbit monoclonal IgG (ab172730) / Left isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody).

Goat Anti-Rabbit IgG (Alexa Fluor®488, ab150081) at 1/5000 dilution was used as the secondary antibody.

Gated on viable cells. Cells were co-stained with anti-NK1.1 conjugated to Brilliant Violet 421.



Flow Cytometry - Anti-2B4 antibody [EPR30263-524] - BSA and Azide free (ab325758)

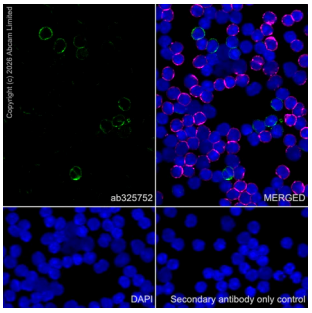
2B4 Flow Cytometry staining of Mouse PBMC (mouse primary peripheral blood mononuclear cell) using rabbit Anti-2B4 antibody

This data was developed using ab325752, the same antibody clone in a different buffer formulation.

Flow cytometric analysis of Mouse PBMC (mouse primary peripheral blood mononuclear cell) cells labelling 2B4 with ab325752 at 1/50 dilution (1ug) / Right compared with a Rabbit monoclonal IgG (ab172730) / Left isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody).

Goat Anti-Rabbit IgG (Alexa Fluor®488, ab150081) at 1/5000 dilution was used as the secondary antibody.

Gated on viable cells. Cells were co-stained with anti-CD14 conjugated to Brilliant Violet 421.



Immunocytochemistry/ Immunofluorescence - Anti-2B4 antibody [EPR30263-524] - BSA and Azide free (ab325758)

2B4 Immunocytochemistry/ Immunofluorescence staining of Mouse PBMC using rabbit Anti-2B4 antibody

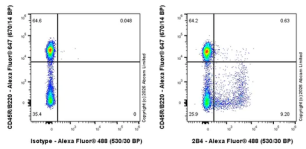
This data was developed using ab325752, the same antibody clone in a different buffer formulation.

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized Mouse PBMC cells labelling 2B4 with ab325752 at 1/50 (9.88 µg/ml) dilution , followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor®488) preadsorbed antibody at 1/1000 dilution (Green).

Confocal image showing membranous and cytoplasmic staining in subsets of mouse PBMCs(shown in green), which is not co-stain with CD45R marker. The counterstain was observed in magenta. Nuclear DNA was labelled with DAPI (shown in blue). Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

Anti-human/mouse CD45R/B220 rat monoclonal antibody (Alexa Fluor®647) was used to counterstain tubulin at 1/100 dilution (Magenta). The Nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Secondary antibody is ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor®488) preadsorbed at 1/1000 dilution.



Flow Cytometry - Anti-2B4 antibody [EPR30263-524] - BSA and Azide free (ab325758)

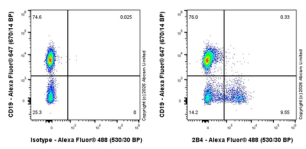
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Flow cytometric analysis of Mouse PBMC (mouse primary peripheral blood mononuclear cell) cells labelling 2B4 with ab325752 at 1/50 dilution (1ug) / Right compared with a Rabbit monoclonal IgG (ab172730) / Left isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody).

Goat Anti-Rabbit IgG (Alexa Fluor®488, ab150081) at 1/5000 dilution was used as the secondary antibody.

Gated on viable cells. Cells were co-stained with anti-CD45R/B220 conjugated to Alexa Fluor®647.



Flow Cytometry - Anti-2B4 antibody [EPR30263-524] - BSA and Azide free (ab325758)

2B4 Flow Cytometry staining of Mouse spleen cell using rabbit Anti-2B4 antibody

This data was developed using ab325752, the same antibody clone in a different buffer formulation.

Flow cytometric analysis of Mouse spleen cell cells labelling 2B4 with ab325752 at 1/50 dilution (1ug) / Right compared with a Rabbit monoclonal IgG (ab172730) / Left isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody).

Goat Anti-Rabbit IgG (Alexa Fluor®488, ab150081) at 1/5000 dilution was used as the secondary antibody.

Gated on viable cells. Cells were co-stained with anti-CD19 conjugated to Alexa Fluor®647.

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