abcam

# ab255689

# Anti-CD229 antibody [EPR22611-54] - 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** | EPR22611-54 |
| **Purification technique** | Affinity purification Protein A |
| **Concentration** | 0.991 - 0.995 mg/mL The concentration of this product may be batch-dependent<br>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** | - |

## IHC-P

### Not recommended

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | - |
| **Notes** | - |

## ICC/IF

### Not recommended

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | - |
| **Notes** | - |

# Target data

See full target information LY9

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|---|---|
| **Function** | Self-ligand receptor of the signaling lymphocytic activation molecule (SLAM) family. 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. May participate in adhesion reactions between T lymphocytes and accessory cells by homophilic interaction. Promotes T-cell differentiation into a helper T-cell Th17 phenotype leading to increased IL-17 secretion; the costimulatory activity requires SH2D1A (PubMed:22184727). Promotes recruitment of RORC to the IL-17 promoter (PubMed:22989874). May be involved in the maintenance of peripheral cell tolerance by serving as a negative regulator of the immune response. May disable autoantibody responses and inhibit IFN-gamma secretion by CD4(+) T-cells. May negatively regulate the size of thymic innate CD8(+) T-cells and the development of invariant natural killer T (iNKT) cells (By similarity). |

## 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

ab255689 is the carrier-free version of ab254266.

**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.

## Supplementary info

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

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|---|---|
| **Activity summary** | CD229 also known as SLAMF3 or Ly9 is a transmembrane protein that weighs approximately 80 kDa. This protein belongs to the CD2 subset of the immunoglobulin superfamily. You can find high expression of CD229 in various lymphoid tissues such as the spleen thymus and peripheral blood lymphocytes. Its expression is notably high in T cells B cells and natural killer (NK) cells. As a homophilic receptor CD229 aids in cell-cell adhesion playing an essential role in immune response regulation among lymphocytes. |
| **Biological function summary** | CD229 influences signaling within immune cells. It functions as a mediator of adhesion and activation signaling pathways. CD229 does not act alone and often works as part of a receptor complex that may include CD48 and other members of the SLAM family. Besides its role in cellular adhesion CD229 participates in balancing immune activation and immune tolerance demonstrating its importance in developing and maintaining a robust immune response. |
| **Pathways** | CD229 participates in the adaptive immune signaling pathways. It links with other signaling proteins such as SAP (SLAM-associated protein) a critical modulator of downstream signaling cascades. SAP interacts with SLAM-family receptors including CD229 to regulate T and B cell activation and function. The involvement of CD229 in various immune signaling pathways positions it as a significant player in the broader context of cellular communication and response within the immune system. |
| **Associated diseases and disorders** | CD229's aberrant expression or dysfunction links to autoimmune diseases such as systemic lupus erythematosus (SLE) and certain hematological malignancies. Altered CD229 expression has been observed in association with SLE where it may contribute to dysregulated immune responses. In hematological cancers CD229 overexpression or mutations can disrupt immune cell regulation promoting tumor progression. CD229 may interact with other SLAM-family proteins like CD244 which have implications in disease pathology and can be targets for therapeutic interventions. |

## 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.

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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.

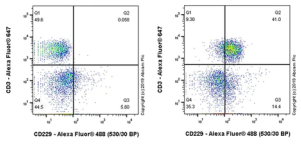
In the unlikely event of one of our products not working as expected, you are covered by our product promise.

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

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## 2 product images

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### Flow Cytometry - Anti-CD229 antibody [EPR22611-54] - BSA and Azide free (ab255689)

CD229 Flow Cytometry staining using rabbit Anti-CD229 antibody

Flow cytometric analysis of human PBMC (peripheral blood mononuclear cells) cells labeling CD229 with ab254266 at 1/500 (Right) compared with Recombinant Rabbit IgG, monoclonal [EPR25A] - Isotype Control (ab172730) (Left).
Goat Anti-Rabbit IgG Fc (Alexa Fluor® 488) preadsorbed (ab150097), at 1/5000 dilution was used as the secondary antibody.

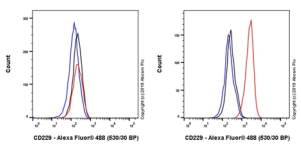
Cells were stained with rabbit IgG (Left) or ab254266 (Right). Then stained with anti-CD3 conjugated to Alexa Fluor® 647.

The expression pattern is consistent with what described in the literature. (PMID: 11369645)

Gated on viable cells.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab254266).

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### Flow Cytometry - Anti-CD229 antibody [EPR22611-54] - BSA and Azide free (ab255689)

CD229 Flow Cytometry staining using rabbit Anti-CD229 antibody

Flow cytometric analysis of U937 (human histiocytic lymphoma cell line) (Left) and Daudi (human Burkitt's lymphoma cell line) (Right) cells labeling CD229 with ab254266 at 1/500 (red) compared with Recombinant Rabbit IgG, monoclonal [EPR25A] - Isotype Control (ab172730) (black) and an

unlabelled control (cells without incubation with primary antibody and secondary antibody) (blue).
Goat Anti-Rabbit IgG Fc (Alexa Fluor® 488) preadsorbed (ab150097), at 1/5000 dilution was used as the secondary antibody.

**Negative control:** U937. The expression pattern is consistent with what has been described in the literature. (PMID: 15245368).

Gated on viable cells.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab254266).

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