abcam

ab256529

Anti-SLAMF7/CS1 antibody [EPR22948-114] - 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	EPR22948-114
Purification technique	Affinity purification Protein A
Concentration	0.946 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Not recommended

Species	Human
Dilution info	-

Notes	-

ICC/IF

Not recommended

Species	Human
Dilution info	-
Notes	-

IP

Not recommended

Species	Human
Dilution info	-
Notes	-

Flow Cyt

Tested

Species	Human
Dilution info	-
Notes	-

WB

Not recommended

Species	Human
Dilution info	-
Notes	-

Target data

See full target information SLAMF7

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. Isoform 1 mediates NK cell activation through a SH2D1A-independent extracellular signal-regulated ERK-mediated pathway (PubMed:11698418). Positively regulates NK cell functions by a mechanism dependent on phosphorylated SH2D1B. Downstream signaling implicates PLCG1, PLCG2 and PI3K (PubMed:16339536). In addition to heterotypic NK cells-target cells interactions also homotypic interactions between NK cells may contribute to activation. However, in the absence of SH2D1B, inhibits NK cell function. Also acts inhibitory in T-cells (By similarity). May play a role in lymphocyte adhesion (PubMed:11802771). In LPS-activated monocytes negatively regulates production of pro-inflammatory cytokines (PubMed:23695528). Isoform 3 does not mediate any NK cell activation.

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

ab256529 is the carrier-free version of ab223201.

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.

Activity summary	SLAMF7 also known as CS1 is a glycoprotein with a mass of approximately 70 kDa. This protein localizes on the surface of immune cells mainly on natural killer (NK) cells certain subsets of T cells and mature dendritic cells. It does not express in resting B cells but can be induced upon activation. CS1 plays a role in immune modulation by facilitating cell-to-cell interactions and activating various signaling pathways that enable immune responses.
Biological function summary	SLAMF7/CS1 modulates immune functions by engaging in interactions with other cell surface receptors. It often operates in the context of hematopoietic cells integrating signals that influence cell proliferation differentiation and survival. It does not require an associated adaptor molecule like most of the SLAM family members as it signals through its ability to recruit EAT-2. The CS1 protein modulates pathways related to immune cell activation and control making it an important player in the regulation of immune responses.
Pathways	CS1 participates prominently in immune signaling pathways where it interacts with proteins such as SAP and EAT-2. It is particularly involved in the immunoregulatory interactions contributing to NK cell-mediated cytotoxicity and modulation of T-cell responses. These interactions illustrate CS1's role in the modulation of immune responses positioning it within the broader network of immune signaling pathways important for maintaining immune homeostasis and defense mechanisms.
Associated diseases and disorders	SLAMF7/CS1 shows key relevance in multiple myeloma and systemic lupus erythematosus (SLE). In multiple myeloma CS1 presents an overexpression and serves as a therapeutic target; its relationship with CD38 another important marker illustrates the potential for targeted therapies. In SLE improper signaling involving CS1 can contribute to the dysregulation of immune responses. Overall the intricate interactions of CS1 with other proteins highlight its significance in disease pathology and therapeutic potential.

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.

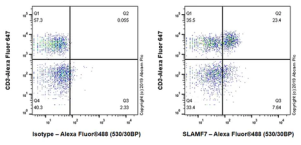
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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.

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2 product images

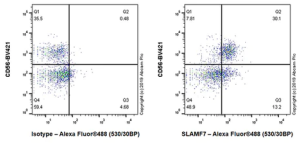


Flow Cytometry - Anti-SLAMF7/CS1 antibody [EPR22948-114] - BSA and Azide free (ab256529)

SLAMF7/CS1 Flow Cytometry staining using rabbit Anti-SLAMF7/CS1 antibody

Flow cytometric analysis of human peripheral blood mononuclear cell (PBMC) cells labeling SLAMF7/CS1 with ab223201 at 1/500 compared with a Rabbit monoclonal IgG (ab172730) / Black isotype control and an unlabeled control (cells without incubation with primary antibody and secondary antibody) (Blue). Goat anti rabbit IgG (Alexa Fluor® 488, ab150097) at 1/5000 dilution was used as the secondary antibody.
Cells were stained with rabbit IgG (Left) or ab223201 (Right). Then stained with anti-CD3 conjugated to Alexa Fluor® 647 and anti-CD56 conjugated to BV421. Gated on viable CD3(-) cells.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab223201).



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Cells were stained with rabbit IgG (Left) or ab223201 (Right). Then stained with anti-CD3 conjugated to Alexa Fluor® 647 and anti-CD56 conjugated to BV421. Gated on viable CD56(-) cells.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab223201).

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