abcam

ab274380

Anti-CD160 antibody [EPR23644-24] - 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	EPR23644-24
Purification technique	Affinity purification Protein A
Concentration	1.024 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Not recommended

Species	Human, Mouse, Rat
Dilution info	-

Notes	-

IP

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt

Tested

Species	Human
Dilution info	-
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

WB

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Human, Mouse, Rat
Dilution info	-

Notes	-

Target data

See full target information CD160

Function	CD160 antigen. Receptor on immune cells capable to deliver stimulatory or inhibitory signals that regulate cell activation and differentiation. Exists as a GPI-anchored and as a transmembrane form, each likely initiating distinct signaling pathways via phosphoinositol 3-kinase in activated NK cells and via LCK and CD247/CD3 zeta chain in activated T cells (PubMed:11978774, PubMed:17307798, PubMed:19109136). Receptor for both classical and non-classical MHC class I molecules (PubMed:12486241, PubMed:9973372). In the context of acute viral infection, recognizes HLA-C and triggers NK cell cytotoxic activity, likely playing a role in anti-viral innate immune response (PubMed:12486241). On CD8+ T cells, binds HLA-A2-B2M in complex with a viral peptide and provides a costimulatory signal to activated/memory T cells (PubMed:9973372). Upon persistent antigen stimulation, such as occurs during chronic viral infection, may progressively inhibit TCR signaling in memory CD8+ T cells, contributing to T cell exhaustion (PubMed:25255144). On endothelial cells, recognizes HLA-G and controls angiogenesis in immune privileged sites (PubMed:16809620). Receptor or ligand for TNF superfamily member TNFRSF14, participating in bidirectional cell-cell contact signaling between antigen presenting cells and lymphocytes. Upon ligation of TNFRSF14, provides stimulatory signal to NK cells enhancing IFNG production and anti-tumor immune response (By similarity). On activated CD4+ T cells, interacts with TNFRSF14 and down-regulates CD28 costimulatory signaling, restricting memory and alloantigen-specific immune response (PubMed:18193050). In the context of bacterial infection, acts as a ligand for TNFRSF14 on epithelial cells, triggering the production of antimicrobial proteins and pro-inflammatory cytokines (By similarity). CD160 antigen, soluble form. The soluble GPI-cleaved form, usually released by activated lymphocytes, might play an immune regulatory role by limiting lymphocyte effector functions.

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

ab274380 is the carrier-free version of ab274374.

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	CD160 also known as BY55 is a glycosylphosphatidylinositol (GPI)-anchored protein with a molecular weight of approximately 27 kDa. This protein is expressed on the surface of natural killer (NK) cells CD8+ T cells and certain NKT cells. It functions as a receptor for MHC class I molecules and HLA-C playing a role in regulating immune responses. Researchers have also identified its expression in some endothelial cells.
Biological function summary	The protein CD160 plays a role in immune modulation by interacting with major histocompatibility complex (MHC) class I ligands. It participates in the immune response by enhancing cytotoxic activity in NK and CD8+ T cells therefore influencing cell-mediated immunity. CD160 does not associate with large signal transduction complexes but operates as a standalone receptor capable of mediating cellular effects upon ligand binding. Although primarily known for its role in immune modulation CD160 can impact endothelial functions suggesting a broader biological significance.
Pathways	CD160 engages in the pathway associated with immune cell signaling. It operates within the natural killer cell signaling cascade contributing to the regulation of cell-mediated cytotoxicity. In the context of adaptive immunity CD160 influences the T cell receptor signaling pathway indirectly coordinating its actions with

proteins such as NKG2D and PD-1. These interactions are important in how immune cells assess threats and modulate responses.

Associated diseases and disorders

CD160 has implications in chronic inflammatory and autoimmune conditions. It is linked to disorders such as inflammatory bowel disease and psoriasis where immune regulation is disrupted. Its interaction with other proteins such as PD-1 may either exacerbate or alleviate symptoms depending on the pathological context. Understanding CD160's role provides insights into therapeutic strategies aimed at modulating immune responses in these 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

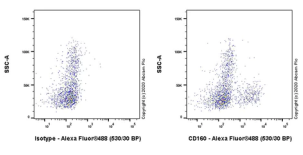
We do not recommend this combination. It is not covered by our product promise.

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.

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

2 product images



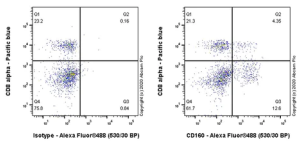
Flow Cytometry - Anti-CD160 antibody [EPR23644-24] - BSA and Azide free (ab274380)

CD160 Flow Cytometry staining using rabbit Anti-CD160 antibody

Flow cytometric analysis of Human peripheral blood mononuclear cell (PBMC) cells labelling CD160 with ab274374 at 1/500 dilution (0.1ug) (Right) compared with a Rabbit monoclonal IgG (ab172730) isotype control (Left). Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) at 1/2000 dilution was used as the secondary antibody.

Negative control: Monocytes (PMID: 30770415). Monocytes are the SSC high population. No positive signal was detected in this population.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab274374).



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Cells were stained with rabbit IgG or ab274374. Then stained with anti-CD8 alpha conjugated to Pacific blue.

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 (ab274374).

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