abcam

**ab275950**

# APC Anti-CD160 antibody [BY55]

Anti-CD160 antibody [BY55] conjugated to APC - suitable for flow cytometry, and reacts with human samples. Clone [BY55] is a mouse monoclonal antibody cited in 17 publications.

Design your panel with our interactive flow cytometry panel builder. Click here.

## Key facts

| | |
|---|---|
| **Isotype** | IgM |
| **Host species** | Mouse |
| **Conjugation** | APC |
| **Excitation/Emission** | Ex: 650nm, Em: 660nm |
| **Storage buffer** | pH: 7.4 Preservative: 0.1% Sodium azide Constituents: PBS |
| **Form** | Liquid |
| **Clonality** | Monoclonal |
| **Immunogen** | Cell preparation containing CD160 protein. The exact immunogen used to generate this antibody is proprietary information. Database link O95971 |
| **Clone number** | BY55 |
| **Purification technique** | Size-exclusion chromatography |
| **Light chain type** | kappa |

## Reactivity data

## Flow Cyt

### Tested

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|---|---|
| **Species** | Human |

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| **Dilution info** | - |
| **Notes** | 10 µl reagent / 100 µl of whole blood or $10^6$ cells in a suspension. |

## Target data

See full target information CD160

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|---|---|
| **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

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|---|---|
| **Shipped at conditions** | Blue Ice |
| **Appropriate short-term storage conditions** | +4°C |
| **Appropriate long-term storage conditions** | +4°C |
| **Storage information** | Do Not Freeze, Store in the dark |

## 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**

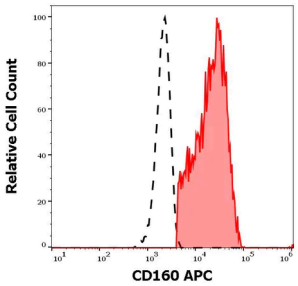
We do not recommend this combination. It is not covered by our product promise.

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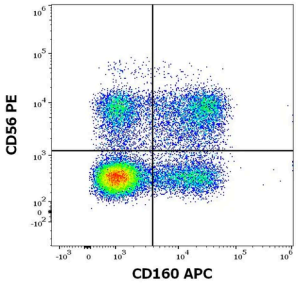
## 3 product images




### Flow Cytometry - APC Anti-CD160 antibody [BY55] (ab275950)

CD160 Flow Cytometry staining using mouse Anti-CD160 antibody

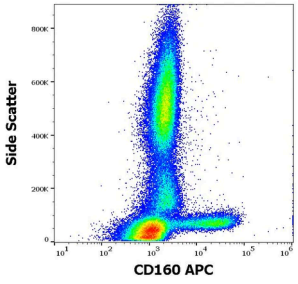
Separation of human CD160 positive CD56 positive NK cells (red-filled) from neutrophil granulocytes (black-dashed) in flow cytometry analysis (surface staining) of human peripheral whole blood stained using ab275950 (10 µl reagent / 100 µl of peripheral whole blood).




### Flow Cytometry - APC Anti-CD160 antibody [BY55] (ab275950)

CD160 Flow Cytometry staining using mouse Anti-CD160 antibody

Flow cytometry multicolor surface staining pattern of human lymphocytes using ab275950 (10 µl reagent / 100 µl of peripheral whole blood) and anti-human CD56 (LT56) PE antibody (10 µl reagent / 100 µl of peripheral whole blood).




### Flow Cytometry - APC Anti-CD160 antibody [BY55] (ab275950)

CD160 Flow Cytometry staining using mouse Anti-CD160 antibody

Flow cytometry surface staining pattern of human peripheral whole blood stained using ab275950 (10 µl reagent / 100 µl of peripheral whole blood).

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