ARG42301
anti-CD160 antibody [BY55] (APC)

Package: 50 tests
Store at: 4°C

Summary

Product Description	APC-conjugated Mouse Monoclonal antibody [BY55] recognizes CD160
Tested Reactivity	Hu
Tested Application	FACS
Specificity	The mouse monoclonal antibody BY55 recognizes an extracellular epitope of CD160, a 27 kDa glycoprotein expressed on NK cells, NK-T cells, intestinal intraepithelial lymphocytes, TCR-gamma/delta T cells and a small population of TCR-alpha/beta T cells. The antibody detects both GPI-anchored and transmembrane form of CD160.
Host	Mouse
Clonality	Monoclonal
Clone	BY55
Isotype	IgM, kappa
Target Name	CD160
Species	Human
Immunogen	Human NK cell line YT2C2.
Conjugation	APC
Alternate Names	BY55; Natural killer cell receptor BY55; NK28; NK1; CD antigen CD160; CD160 antigen

Application Instructions

Application table

Application	Dilution
FACS	10 µl / 100 µl of whole blood or 10^6 cells

Application Note: * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

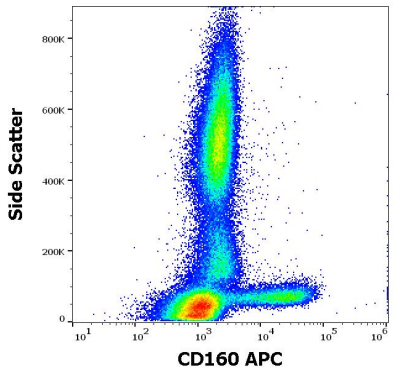
Properties

Form	Liquid
Purification	Purified
Buffer	PBS and 15 mM Sodium azide.
Preservative	15 mM Sodium azide
Storage instruction	Aliquot and store in the dark at 2-8°C. Keep protected from prolonged exposure to light. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

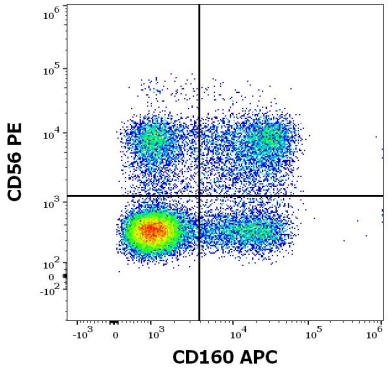
Gene Symbol	CD160
Gene Full Name	CD160 molecule
Background	CD160 is an 27 kDa glycoprotein which was initially identified with the monoclonal antibody BY55. Its expression is tightly associated with peripheral blood NK cells and CD8 T lymphocytes with cytolytic effector activity. The cDNA sequence of CD160 predicts a cysteine-rich, glycosylphosphatidylinositol-anchored protein of 181 amino acids with a single Ig-like domain weakly homologous to KIR2DL4 molecule. CD160 is expressed at the cell surface as a tightly disulfide-linked multimer. RNA blot analysis revealed CD160 mRNAs of 1.5 and 1.6 kb whose expression was highly restricted to circulating NK and T cells, spleen and small intestine. Within NK cells CD160 is expressed by CD56dimCD16+ cells whereas among circulating T cells its expression is mainly restricted to TCRgd bearing cells and to TCRab+CD8brightCD95+CD56+CD28-CD27-cells. In tissues, CD160 is expressed on all intestinal intraepithelial lymphocytes. CD160 shows a broad specificity for binding to both classical and nonclassical MHC class I molecules. [provided by RefSeq, Jul 2008]
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:19109136, PubMed:11978774, PubMed:17307798). Receptor for both classical and non-classical MHC class I molecules (PubMed:9973372, PubMed:12486241). 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 downregulates 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 proinflammatory 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. [UniProt]
Calculated Mw	20 kDa
Cellular Localization	Cell membrane; Lipid-anchor, GPI-anchor. [UniProt]

Images



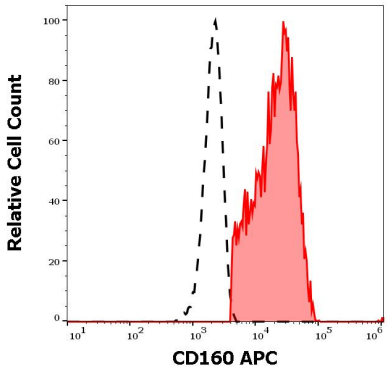
ARG42301 anti-CD160 antibody [BY55] (APC) FACS image

Flow Cytometry: Human peripheral whole blood stained with ARG42301 anti-CD160 antibody [BY55] (APC) at 10 µl / 100 µl of peripheral whole blood.



ARG42301 anti-CD160 antibody [BY55] (APC) FACS image

Flow Cytometry: Human lymphocytes stained with ARG42301 anti-CD160 antibody [BY55] (APC) at 10 µl / 100 µl of peripheral whole blood and anti-CD56 [LT56] (PE) at 10 µl / 100 µl of peripheral whole blood.



ARG42301 anti-CD160 antibody [BY55] (APC) FACS image

Flow Cytometry: Separation of Human CD160 positive CD56 positive lymphocytes (red-filled) from neutrophil granulocytes (black-dashed). Human peripheral whole blood stained with ARG42301 anti-CD160 antibody [BY55] (APC) at 10 µl / 100 µl of peripheral whole blood.