

DESCRIPTION

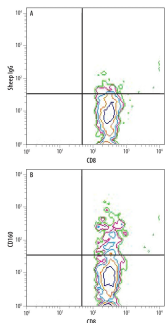
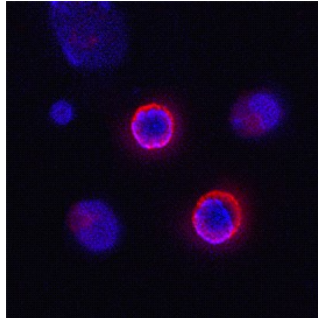
Species Reactivity	Mouse
Specificity	Detects mouse CD160 in direct ELISAs. In direct ELISAs, less than 1% cross-reactivity with recombinant human CD160 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant mouse CD160 Gly28-Ser160 Accession # AAH21596
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Flow Cytometry	2.5 µg/10 ⁶ cells	See Below
Immunocytochemistry	5-15 µg/mL	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

DATA

<p>Flow Cytometry</p>  <p>Detection of CD160 in Mouse Splenocytes by Flow Cytometry. Mouse splenocytes (CD8-gated) stimulated with LPS for 3 hours were stained with Sheep Anti-Mouse CD160 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3899) followed by Phycoerythrin-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # F0126) and Rat Anti-Mouse CD8α APC-conjugated Monoclonal Antibody (Catalog # FAB116A). Quadrant markers were set based on control antibody staining (Catalog # 5-001-A).</p>	<p>Immunocytochemistry</p>  <p>CD160 in Mouse Splenocytes. CD160 was detected in immersion fixed mouse CD8+ splenocytes using Sheep Anti-Mouse CD160 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3899) at 15 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Sheep IgG Secondary Antibody (red; Catalog # NL010) and counterstained with DAPI (blue). Specific staining was localized to plasma membranes. View our protocol for Fluorescent ICC Staining of Non-adherent Cells.</p>
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PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.2 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

-CD160 (also Natural killer cell receptor BY55) is a 16 kDa (predicted) member of the Ig superfamily (1 - 4). In mouse, it is expressed principally on nonmyeloid hematopoietic cells. These include CD3+ NK1.1 cells, CD8+ T_{EM} and T_{CM} T cells, CD8 α + IELs, NKT cells, CD8- $\gamma\delta$ TCR T cells, and vascular endothelial cells (1, 5-7). Mouse CD160 has been identified as a 20-21 kDa GPI-linked glycoprotein (4, 5). It is synthesized as a preproprotein that is 185 amino acids (aa) in length. The precursor contains a 27 aa signal sequence, a 133 aa mature molecule that shows one 98 aa V-type Ig-like domain (aa 28-125), and a 25 aa prosegment that is cleaved to generate a GPI-linkage at Ser160. Mouse GPI-linked CD160 is known to be cleaved by phospholipase C, and this generates a 40 kDa (presumably dimeric) band in SDS-PAGE (5). One alternative splice form for mouse CD160 is reported that appears to show a deletion of aa 137-180. This may generate a soluble molecule (5; GenBank Accession # NP_001156969). Mature mouse CD160 shares 63% and 88% aa identity with human and rat CD160, respectively.

In mouse, CD160 is reported to bind to HVEM/TNFRSF14, and both classical and non-classical MHC Class I molecules (5, 8). MHC-I proteins recognized by CD160 include Dd, Kb, Qa-1b and CD1d (5). Upon engagement, the effects of CD160 ligation appear to be context dependent. When expressed on endothelial cells, CD160 binding to human HLA-G1 initiates apoptosis, and thus impacts angiogenesis (6). When expressed on NK1.1 cells, mouse CD160 ligation alone has no effect; when combined with NK1.1 antigen stimulation, CD160 decreases NK cell IFN- γ secretion. Relative to cytotoxicity, NK cell activity is positively correlated with the presence of CD160 (5).

References:

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4. Anumanthan, A. *et al.* (1998) *J. Immunol.* **161**:2780.
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