

## DESCRIPTION

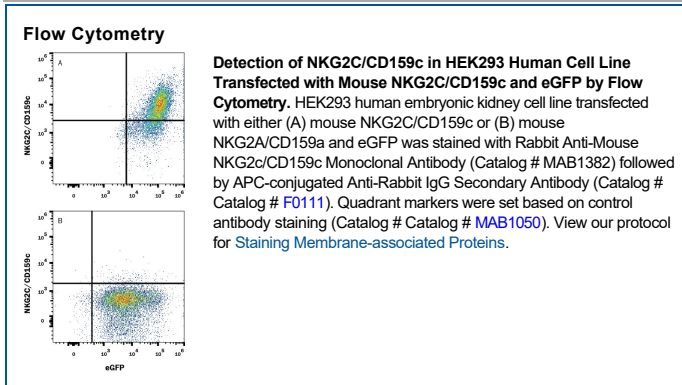
<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse NKG2C/CD159c in direct ELISAs. In Flow Cytometry, no cross-reactivity with mouse NKG2A/CD159a is observed.
<b>Source</b>	Recombinant Monoclonal Rabbit IgG Clone # 2098A
<b>Purification</b>	Protein A or G purified from cell culture supernatant
<b>Immunogen</b>	Mouse NKG2C/CD159c synthetic peptide Accession # NP_034783
<b>Formulation</b>	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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Flow Cytometry</b>	0.25 µg/10 <sup>6</sup> cells	See Below
<b>CytoTOF-ready</b>	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

## DATA



## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.5 mg/mL in sterile PBS.
<b>Shipping</b>	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
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>• 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>• 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

**BACKGROUND**

NKG2C (NK cell Group 2 isoform C; Killer cell lectin-like receptor subfamily C, member 2) is a member of the C-type lectin-like superfamily of proteins. Natural killer (NK) receptors are expressed in both NK cells and cytotoxic CD8<sup>+</sup> T cells and have both activating and inhibitory members (1-3). Regulation of the balance between the activating and inhibitory receptors is important and lack of such regulation has been implicated in autoimmunity (4). The NKG2 family includes seven receptors: NKG2A, -B, -C, -D, -E, -F, and -H, which is the longer isoform of NKG2E. Except for NKG2D and NKG2F, the NKG2 family members form heterodimers with CD94 (5, 6). NKG2C interacts with the adapter molecule DAP12 and acts as activating receptor when heterodimerized with CD94 (7). Human NKG2C is synthesized as a 231 amino acid (aa) protein that includes a 70 aa cytoplasmic domain, a 23 aa transmembrane segment, and a 138 aa extracellular domain (ECD). Within the ECD, human NKG2C shares 40% sequence identity with mouse NKG2C. NKG2C-CD94 heterodimers bind to the widely expressed nonclassical MHC-I molecule, HLA-E (Qa-1b in mouse), which presents a peptide derived from the signal peptide of classical MHC-I molecules (8, 9). Triggering the NKG2C-CD94 complex may activate the cytolytic activity and cytokine production of NK and CD8<sup>+</sup> T cells (8, 10). Human cytomegalovirus (HCMV) infection promotes the differentiation and expansion of NKG2C<sup>+</sup> NK cell subsets, possibly involving a cognate interaction of CD94/NKG2C with ligand(s) displayed by HCMV-infected cells (11, 12).

**References:**

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