

NKG2C/CD159c Protein, Human (HEK293, His-Avi)

Cat. No.:	HY-P78006
Synonyms:	CD159c; KLRC2; NKG2C; NK cell receptor C
Species:	Human
Source:	HEK293
Accession:	P26717 (E98-L231)
Gene ID:	3822
Molecular Weight:	40-55 kDa

PROPERTIES

Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.22 μ m filtered solution of PBS, pH 7.4. Normally 5% trehalose is added as protectant before lyophilization.
Endotoxin Level	<1 EU/ μ g, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 μ g/mL in ddH ₂ O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	<p>NKG2C/CD159c Protein, an immune activating receptor, plays a pivotal role in self-nonself discrimination. Teaming up with KLRD1 on cytotoxic lymphocyte subsets, it recognizes non-classical major histocompatibility (MHC) class Ib HLA-E loaded with signal sequence-derived peptides from non-classical MHC class Ib HLA-G molecules. This interaction likely contributes to the generation and effector functions of adaptive natural killer (NK) cells and is implicated in maternal-fetal tolerance during pregnancy. NKG2C/CD159c also regulates the effector functions of terminally differentiated cytotoxic lymphocyte subsets, particularly in the adaptive NK cell response to viral infection. Upon binding to HLA-E-peptide complexes, NKG2C/CD159c transmits intracellular signals through the adapter protein TYROBP/DAP12, initiating the phosphorylation of proximal signaling molecules and subsequent cell activation. Forming a heterodimer with KLRD1 through disulfide linkage, the KLRD1-KLRC2 receptor complex, in association with TYROBP homodimers, is crucial for its cell surface expression. Additionally, this receptor complex can bind with low affinity to HLA-E loaded with self-peptides derived from the signal sequence of classical MHC class Ia. The multifaceted interactions and functions of NKG2C/CD159c underscore its essential role in immune responses and self-tolerance mechanisms.</p>
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Caution: Product has not been fully validated for medical applications. For research use only.

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