

## NKG2C-CD94 Heterodimer Protein, Human (HEK293, His-Avi)

|                   |                                     |
|-------------------|-------------------------------------|
| Cat. No.:         | HY-P77807                           |
| Synonyms:         | NKG2C&CD94                          |
| Species:          | Human                               |
| Source:           | HEK293                              |
| Accession:        | P26717 (E98-L231)&Q13241 (S34-I179) |
| Gene ID:          | 3822&3824                           |
| Molecular Weight: | 30-50 kDa                           |

### PROPERTIES

|                     |  |
|---------------------|--|
| Appearance          | Lyophilized powder.  |
| Formulation         | Lyophilized from a 0.22 $\mu$ m filtered solution of PBS, pH 7.4. Normally 5% trehalose is added as protectant before lyophilization.  |
| Endotoxin Level     | <1 EU/ $\mu$ g, determined by LAL method.  |
| Reconstitution      | It is not recommended to reconstitute to a concentration less than 100 $\mu$ g/mL in ddH <sub>2</sub> 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.**

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA