

**DESCRIPTION**

<b>Source</b>	Human embryonic kidney cell, HEK293-derived human CD94 protein			
	MD	Human IgG <sub>1</sub> (Pro100-Lys330)	IEGR	Human CD94 (Lys32-Ile179) Accession # Q13241.2
	N-terminus		C-terminus	
<b>N-terminal Sequence Analysis</b>	Met & Asp & Pro100			
<b>Structure / Form</b>	Disulfide-linked homodimer.			
<b>Predicted Molecular Mass</b>	44 kDa			

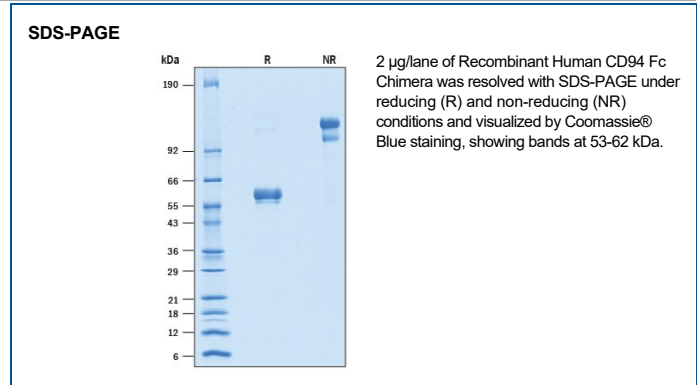
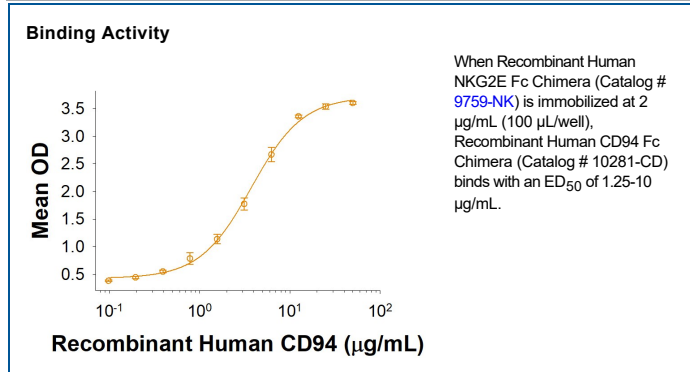
**SPECIFICATIONS**

<b>SDS-PAGE</b>	53-62 kDa, under reducing conditions
<b>Activity</b>	Measured by its binding ability in a functional ELISA. When Recombinant Human NKG2E Fc Chimera (Catalog # 9759-NK) is immobilized at 2 µg/mL (100 µL/well), Recombinant Human CD94 Fc Chimera (Catalog # 10281-CD) binds with an ED <sub>50</sub> of 1.25-10 µg/mL.
<b>Endotoxin Level</b>	<0.10 EU per 1 µg of the protein by the LAL method.
<b>Purity</b>	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
<b>Formulation</b>	Supplied as a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

**PREPARATION AND STORAGE**

<b>Shipping</b>	The product is shipped with dry ice or equivalent. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<p><b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b></p> <ul style="list-style-type: none"> <li>• 6 months from date of receipt, -20 to -70 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after opening.</li> <li>• 3 months, -20 to -70 °C under sterile conditions after opening.</li> </ul>

**DATA**



**BACKGROUND**

CD94 is an approximately 25 kDa type 2 transmembrane protein that plays an important role in regulating natural killer (NK) cell activation (1). Human CD94 consists of a 10 amino acid (aa) cytoplasmic domain, a 21 aa transmembrane segment, and a 148 aa extracellular domain (ECD) with a stem region and one C-type lectin domain (2). Alternative splicing generates additional isoforms that lack either the stem region, the terminal half of the ECD, or the cytoplasmic and transmembrane regions (3). Within the ECD, human CD94 shares 53% and 55% amino acid identity to mouse and rat CD94, respectively. CD94 is expressed at varying cell surface density on NK cells during their differentiation and on a subset of CD8<sup>+</sup> T cells (4). It associates into disulfide-linked heterodimers with NKG2A/B, C, or E (5-8), and these complexes function as receptors for the nonclassical MHC class I molecule, HLA-E (9, 10). Ligation of CD94-NKG2A or CD94-NKG2C on NK cells triggers inhibitory or activating signals, respectively (11).

**References:**

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