Recombinant Human CD94

Catalog Number: 9270-CD

DESCRIPTION

Source	Chinese Hamster Ovary cell line, CHO-derived Lys32-Ile179, with an N-terminal 6-His tag Accession # Q13241
N-terminal Sequence Analysis	Lys32
Predicted Molecular Mass	18 kDa

SPECIFICATIONS

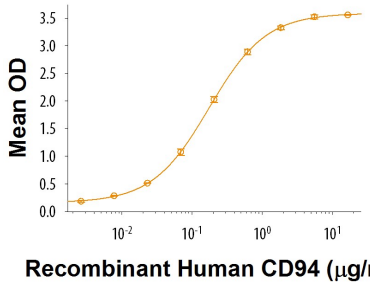
SDS-PAGE	21-38 kDa, reducing conditions
Activity	Measured by its binding ability in a functional ELISA. When Recombinant Mouse NKG2A/CD159a Fc Chimera (Catalog # 9198-NK) is coated at 0.5 µg/mL, 100 µL/well, recombinant human CD94 binds with a typical ED_{50} of 0.1-0.6 µg/mL
Endotoxin Level	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 200 µg/mL in PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 3 months, -20 to -70 °C under sterile conditions after reconstitution.

DATA

Bioactivity



When Recombinant Mouse NKG2A Fc Chimera (Catalog # 9198-NK) is coated at 0.5 µg/mL, Recombinant Human CD94 (Catalog # 9270-CD) binds with an ED_{50} of 0.1-0.6 µg/mL.

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). CD94 is expressed at varying cell surface density on NK cells during their differentiation and on a subset of $CD8^+$ 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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