

DESCRIPTION

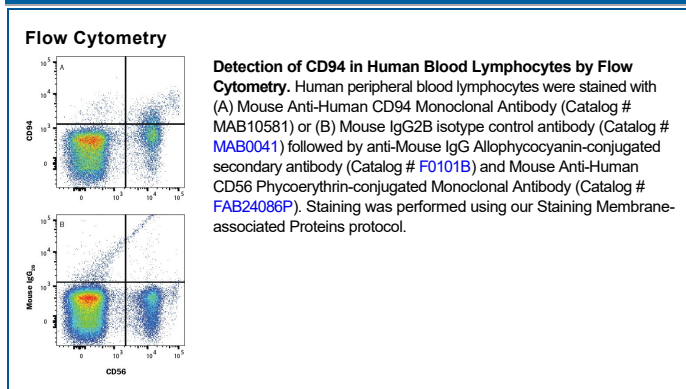
Species Reactivity	Human
Specificity	Detects human CD94 in direct ELISAs.
Source	Monoclonal Mouse IgG _{2B} Clone # 1032011
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Human embryonic kidney cell HEK293-derived human CD94 Lys32-Ile179 Accession # Q13241.2
Formulation	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.

	Recommended Concentration	Sample
Flow Cytometry	0.25 µg/10 ⁶ cells	Human Blood Lymphocytes

DATA



PREPARATION AND STORAGE

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

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⁺ 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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