Human/Mouse/Canine CD94 Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF1058

DESCRIPTION

Species Reactivity	Human/Mouse/Canine
Specificity	Detects recombinant human CD94 in direct ELISAs and human, mouse, and canine CD94 in Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant human CD94 Lys32-Ile179 Accession # Q13241
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

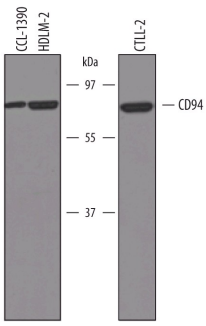
APPLICATIONS

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
Western Blot	1 µg/mL	See Below

DATA

Western Blot



Detection of Human, Mouse, and Canine CD94 by Western Blot. Western blot shows lysates of CLL-1390 canine leukocytic round cell neoplasia cell line, HDLM human Hodgkin's lymphoma cell line, and CTLL-2 mouse cytotoxic T cell line. PVDF membrane was probed with 1 µg/mL of Sheep Anti-Human CD94 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF1058) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for CD94 at approximately 75 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 8.

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.2 mg/mL.
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. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

CD94 (also NK cell receptor, KLRD1 and KP43) is a 27-31 kDa glycoprotein member of the C-type lectin superfamily. It is expressed on NK cells, particularly those that are $CD56^{bright}$, plus those that are $CD56^{dim}$ but secrete material amounts of IFN-γ. CD94 forms covalent transmembrane (TM) heterodimers with NKG2A, B, C, E and H, and binds HLA-E (in human; Qa-1b in mouse) as part of a cellular homeostatic monitoring system. Amide-linkage based complexes with NKG2A are predicted to run at 70-80 kDa in SDS-PAGE. Depending upon the exact NKG2 partner, CD94 ligation can result in either NK cell activation (2C, 2H or 2E) or inhibition (2A or 2B). Human CD94 is a 179 amino acid (aa) type II TM protein. It possesses a short cytoplasmic segment (aa 1-10) plus a 158 aa extracellular region (aa 32-179) that contains one C-type lectin domain (aa 61-176). Multiple splice variants exist. One is a 149 aa, 19 kDa cytosolic protein that shows an Ala substitution for aa 3-34, while a second is a truncated, 104 aa, 17 kDa TM protein. A third isoform is 158 aa in length and 25 kDa in size, and shows a deletion of aa 34-54. Over aa 32-179, human CD94 shares 53% aa identity with mouse CD94.