

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human ICAM-4 in direct ELISAs and Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant human ICAM-4 Ala31-Ala240 Accession # Q14773
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
Western Blot	0.2 µg/mL	See Below
Flow Cytometry	2.5 µg/10 ⁶ cells	See Below
Simple Western	10 µg/mL	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

DATA

Western Blot

Detection of Human ICAM-4 by Western Blot. Western blot shows lysates of human erythrocytes and human heart tissue. PVDF membrane was probed with 0.2 µg/mL of Sheep Anti-Human ICAM-4 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF7179) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for ICAM-4 at approximately 42 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Flow Cytometry

Detection of ICAM-4 in Human Red Blood Cells by Flow Cytometry. Human red blood cells (erythrocytes) were stained with Sheep Anti-Human ICAM-4 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF7179, filled histogram) or isotype control antibody (Catalog # 5-001-A, open histogram), followed by Allophycocyanin-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # F0127).

Simple Western

Detection of Human ICAM-4 by Simple Western™. Simple Western lane view shows lysates of human heart tissue, loaded at 0.2 mg/mL. A specific band was detected for ICAM-4 at approximately 48 kDa (as indicated) using 10 µg/mL of Sheep Anti-Human ICAM-4 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF7179) followed by 1:50 dilution of HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.

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. *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

ICAM-4 (intercellular adhesion molecule 4; also Landsteiner-Wiener glycoprotein and CD242) is a 42 kDa member of the ICAM family, Ig superfamily of proteins. It is expressed on erythrocytes and erythroblasts, and serves as a receptor for LFA-1, Mac-1, and CD11c/CD18, plus $\alpha\beta 1$ and alpha-V containing integrins. ICAM-4 is suggested to bind to Mac-1 on macrophages, allowing for its phagocytosis in senescence. Mature human ICAM-4 is a 249 amino acid (aa) type I transmembrane glycoprotein. It possesses a 218 aa extracellular region (aa 23-240) that contains two C2-type Ig-like domains (aa 62-124 and 146-217), and a 10 aa C-terminal cytoplasmic tail. ICAM-4 may form 85 kDa homodimers. There are three potential isoform variants. One shows a five aa substitution for aa 233-271, a second contains a 15 aa substitution for aa 14-29, and a third possesses a 141 aa substitution for aa 132-271. Over aa 31-240, human ICAM-4 shares 71% aa identity with mouse ICAM-4.