

Biotin Conjugated Anti-Human ICAM1 Antibody [PSH10-16] - Detector

HA723186B



Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	ELISA(Det), ELISA
Clone number:	PSH10-16

Description: ICAM proteins are ligands for the leukocyte adhesion protein LFA-1 (integrin alpha-L/beta-2). During leukocyte trans-endothelial migration, ICAM1 engagement promotes the assembly of endothelial apical cups through ARHGEF26/SGEF and RHOG activation. Acts as a receptor for major receptor group rhinovirus A-B capsid proteins. Acts as a receptor for Coxsackievirus A21 capsid proteins. Upon Kaposi's sarcoma-associated herpesvirus/HHV-8 infection, is degraded by viral E3 ubiquitin ligase MIR2, presumably to prevent lysis of infected cells by cytotoxic T-lymphocytes and NK cell. Interacts with MUC1 and promotes cell aggregation in epithelial cells. Interacts with ARHGEF26/SGEF. Interacts (on T cell side) with CD81, CD247 and CD9 at immunological synapses between antigen-presenting cells and T cells.

Conjugate: Biotin-conjugated

Immunogen: Recombinant protein within Human ICAM1 aa 28-480 (HA210857).

Positive control: Recombinant Human ICAM1 protein (HA210857).

Subcellular location: Membrane.

Database links: SwissProt: P05362 Human

Recommended Dilutions:

ELISA(Det)

Use at an assay dependent concentration. Can be paired for Sandwich ELISA with Rabbit monoclonal [PSH10-15] to Human ICAM1 antibody (Capture) (HA723184) and Recombinant Human ICAM1 protein (HA210857) as the standard. The reference range value is 31-4,000 pg/ml.

ELISA

Use at an assay dependent concentration.

Storage Buffer: PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% ProClin300.

Storage Instruction: Shipped at 4°C. Store at +4°C short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20°C long term.

Purity: Protein A affinity purified.

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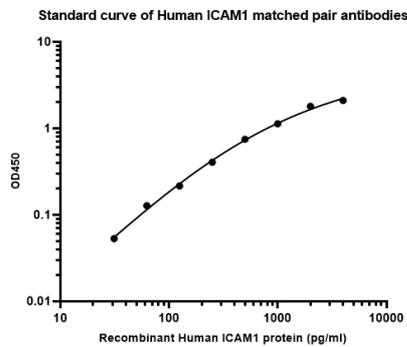
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Fig1: Sandwich ELISA analysis of Human ICAM1 matched pair antibodies



Elisa assay was performed by coating wells of a 96-well plate with 100 μ l per well of capture antibody (HA723184) diluted in carbonate/bicarbonate buffer, at a concentration of 5 μ g/ml overnight at 4 $^{\circ}$ C. Wells of the plate were washed, blocked with 150 μ l 0.05% tween-20 1% BSA blocking buffer, and incubated with serial diluted Recombinant Human ICAM1 protein (HA210857) starting from 4000 pg/ml to 0 pg/ml and detect antibody (HA723186B, 0.2 μ g/ml) for 1 hour at 30 $^{\circ}$ C with shaking. Then the plate was washed and incubated with 100 μ l per well of SA-HRP for 0.5 hour at 30 $^{\circ}$ C with shaking. Detection was performed using an Ultra TMB Substrate for 10 minutes at room temperature in the dark. The reaction was stopped with sulfuric acid and absorbances were read on a spectrophotometer at 450 nm.

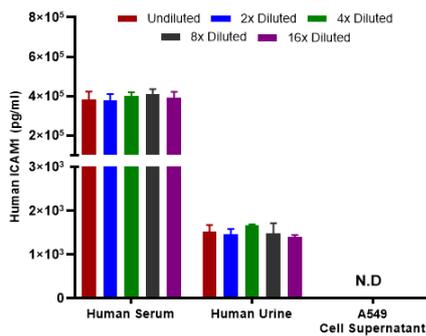


Fig2: Interpolated concentrations of native ICAM1 in human samples.

Interpolated concentration of native ICAM1 was measured in duplicate at different sample concentrations. Undiluted samples were 0.5% cell supernatant. The interpolated dilution factor corrected values were plotted (mean +/- SD, n=2). The mean ICAM1 concentration was determined to be 392,391 pg/mL in human serum and 1,501 pg/ml in human urine. There was no detectable signal in A549 cell culture supernatant.

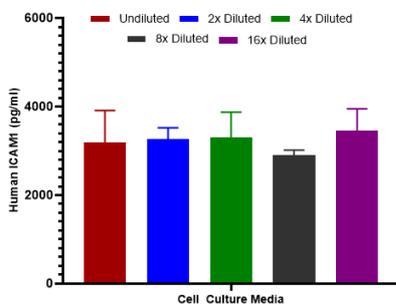


Fig3: Interpolated concentrations of spiked ICAM1 in cell culture media samples.

The concentrations of ICAM1 were measured in duplicates, interpolated from the ICAM1 standard curves and corrected for sample dilution. Undiluted samples are as follows: cell culture media 50%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2).

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. Hayashi T., Takahashi T., Motoya S., Ishida T., Itoh F., Adachi M., Hinoda Y., Imai K. MUC1 mucin core protein binds to the domain 1 of ICAM-1. *Digestion* 63 Suppl. 1:87-92 (2001)
2. van Buul J.D., Allingham M.J., Samson T., Meller J., Boulter E., Garcia-Mata R., Burridge K. RhoG regulates endothelial apical cup assembly downstream from ICAM1 engagement and is involved in leukocyte trans-endothelial migration. *J. Cell Biol.* 178:1279-1293 (2007)

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