Product datasheet

Anti-ICAM1 antibody [MEM-111] ab2213

Overview

Product name: Anti-ICAM1 antibody [MEM-111]
Description: Mouse monoclonal [MEM-111] to ICAM1
Host species: Mouse
Specificity: This antibody reacts with human CD54 antigen.
Tested applications: Suitable for: ICC/IF, ELISA, WB, IHC-P, IHC-Fr, Flow Cyt, Sandwich ELISA
Species reactivity: Reacts with: Cow, Human
Immunogen: Tissue/ cell preparation (Human). (Burkitt's lymphoma cell line RAJI).
Positive control: For WB it is highly recommended to use TNF-alpha activated HUVEC cells as a positive control. Sandwich ELISA: supernatant of HUVEC cell line. Indirect ELISA: endothelial cell line derived from bovine pulmonary artery. RAJI cell line,K562 leukemia cell line, JY cell line, Activated T-lymphocytes, Thymus, RE cells.

Properties

Form: Liquid
Storage instructions: Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer: pH: 7.40
Preservative: 0.097% Sodium azide
Constituent: PBS
Purity: Protein A purified
Clonality: Monoclonal
Clone number: MEM-111
Myeloma: unknown
Isotype: IgG2a
Light chain type: unknown

Applications

Our Abpromise guarantee covers the use of ab2213 in the following tested applications.
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. In case of rhinovirus infection acts as a cellular receptor for the virus.

Sequence similarities
Belongs to the immunoglobulin superfamily. ICAM family. Contains 5 Ig-like C2-type (immunoglobulin-like) domains.

Post-translational modifications
Monoubiquitinated, which is promoted by MARCH9 and leads to endocytosis.

Cellular localization
Membrane.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

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<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
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<tr>
<td>ICC/IF</td>
<td></td>
<td>1/100.</td>
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<tr>
<td>ELISA</td>
<td></td>
<td>Use a concentration of 25 µg/ml. Use at a dilution of 1/1000 for Indirect ELISA, 1hr, RT. The antibody reacts with tissue - endothelial cell line derived from bovine pulmonary artery.</td>
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<td>WB</td>
<td></td>
<td>Use at an assay dependent concentration. Use under non-reducing conditions.</td>
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<td>IHC-P</td>
<td></td>
<td>Use a concentration of 10 µg/ml.</td>
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<tr>
<td>IHC-Fr</td>
<td></td>
<td>Use at an assay dependent concentration.</td>
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<tr>
<td>Flow Cyt</td>
<td></td>
<td>Use a concentration of 2 µg/ml. ab170191 - Mouse monoclonal IgG2a, is suitable for use as an isotype control with this antibody.</td>
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<tr>
<td>Sandwich ELISA</td>
<td></td>
<td>Use a concentration of 5 µg/ml. Can be paired for Sandwich ELISA with Rabbit polyclonal to ICAM1 (Biotin) (ab7815). For sandwich ELISA, use this antibody as Capture at 5µg/ml with ab7815 as Detection.</td>
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Target

Function
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. In case of rhinovirus infection acts as a cellular receptor for the virus.

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Cellular localization
Membrane.
Representative images demonstrating ICAM-1 and FAS induction by recombinant cytokines and BiTE®-activated T cells.

Immunofluorescence images showing ICAM-1 upregulation in NUGC4 cells by (A) 12.5ng/ml each IFNγ + TNFα or (B) 33 pM BiTE® (A, B, blue = nuclear stain, red = ICAM-1 staining).

Representative images of SW620 cells showing upregulation of ICAM-1 by (C) 12.5ng/ml each IFNγ + TNFα or (D) BiTE®-activated T cells. Scale bar = 30 μm.

ICAM1 was detected with ab2213.

(After Figure S5 of Ross et al).

All lanes: Anti-ICAM1 antibody [MEM-111] (ab2213)

Lane 1: TNF-alpha activated HUVEC cells
Lane 2: TNF-alpha nonactivated HUVEC cells

Performed under non-reducing conditions.

Observed band size: 90 kDa

why is the actual band size different from the predicted?

Lower bands represent tubulin as a loading control.

ab2123 staining human PBL cells by flow cytometry. Cells were formaldehyde fixed and gated on B-cells. The primary antibody was incubated with the sample for 30 minutes at 25°C. The secondary antibody was ab6810 (a FITC conjugated chicken polyclonal to mouse IgG - H&L). Both antibodies were used undiluted.
Standard Curve for ICAM1 (Analyte: ab82125) dilution range 1 pg/ml to 1 ug/ml using Capture Antibody Mouse monoclonal [MEM-111] to ICAM1 (ab2213) at 5 ug/ml and Detector Antibody Rabbit polyclonal to ICAM1 (Biotin) (ab7815) at 0.5 ug/ml

All lanes: Anti-ICAM1 antibody [MEM-111] (ab2213) at 1/3000 dilution

Lane 1: Western Markers.
Lane 2: Whole cell lysate prepared from human HUVEC cells (untreated) at 100,000 cells.
Lane 3: Whole cell lysate prepared from human HUVEC cells (treated with 1 ng/ml TNF-alpha for 24 h) at 100,000 cells.

Secondary
All lanes: Rabbit Anti-Mouse IgG H&L (HRP) (ab6728)

Observed band size: 95 kDa why is the actual band size different from the predicted?
Additional bands at: 40 kDa (possible non-specific binding)

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