

## Rabbit Anti-ICAM1 antibody

SL0608R

**Product Name** [KO validated anti] ICAM1

**Chinese Name** 细胞间粘附分子-1 (CD54) 抗体

**Alias** BB2; CD54 antigen; ICAM 1; ICAM-1; Cell surface glycoprotein P3.58; Human rhinovirus receptor; Intercellular adhesion molecule 1; Major group rhinovirus receptor; MALA2; MyD10; P3.58; Surface antigen of activated B cells; ICAM1\_HUMAN; MALA-2; MyD10; intercellular adhesion molecule 1 precursor; intercellular adhesion molecule 1 (CD54), human rhinovirus receptor; major group rhinovirus receptor.

**Research Area** Tumour Cell biology immunology Signal transduction Stem cells The cell membrane 受体 Cell adhesion molecule Cell Surface Molecule glycoprotein Cell type markers t-lymphocyte b-lymphocyte

**Immunogen Species** Rabbit

**Clonality** Polyclonal

**React Species** Human

**Applications** IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,WB=1:500-2000 (Paraffin sections need antigen repair)  
not yet tested in other applications.  
optimal dilutions/concentrations should be determined by the end user.

**Theoretical molecular weight** 56kDa

**Detection molecular weight** 85-110kDa

**Cellular localization** The cell membrane

**Form** Liquid

**Concentration** 1mg/ml

**immunogen** KLH conjugated synthetic peptide derived from human CD54: 201-300/537 <Extracellular>

**Lsotype** IgG

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|                        |   |
|------------------------|---|
| <b>Purification</b>    | affinity purified by Protein A  |
| <b>Buffer Solution</b> | Human1M TBS(pH7.4) with 1% BSA, Human3% Proclin300 and 50% Glycerol.  |
| <b>Storage</b>         | Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.  |
| <b>Attention</b>       | This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.   |
| <b>PubMed</b>          | <a href="#">PubMed</a><br>This gene encodes a cell surface glycoprotein which is typically expressed on endothelial cells and cells of the immune system. It binds to integrins of type CD11a / CD18, or CD11b / CD18 and is also exploited by Rhinovirus as a receptor. [provided by RefSeq, Jul 2008]   |
| <b>Product Detail</b>  | <b>Function:</b><br>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. |
|                        | <b>Subunit:</b><br>Homodimer (Probable). Interacts with human herpesvirus 8 MIR2 protein (Probable). Interacts with MUC1 and promotes cell aggregation in epithelial cells. Interacts with ARHGEF26/SGEF. Binds to coxsackievirus A21 capsid proteins and acts as a receptor for this virus.  |
|                        | <b>Subcellular Location:</b><br>Membrane; Single-pass type I membrane protein.  |
|                        | <b>Post-translational modifications:</b><br>Monoubiquitinated, which is promoted by MARCH9 and leads to endocytosis.  |
|                        | <b>Similarity:</b><br>Belongs to the immunoglobulin superfamily. ICAM family. contains 5 Ig-like C2-type (immunoglobulin-like) domains.   |
|                        | <b>SWISS:</b><br>P05362   |
|                        | <b>Gene ID:</b><br>3383   |
| <b>Database links:</b> |   |

[Entrez Gene: 3383](#) Human

[Entrez Gene: 15894](#) Mouse

[Entrez Gene: 25464](#) Rat

[Omim: 147840](#) Human

[Unigene: 643447](#) Human

[SwissProt: P05362](#) Human

[SwissProt: P13597](#) Mouse

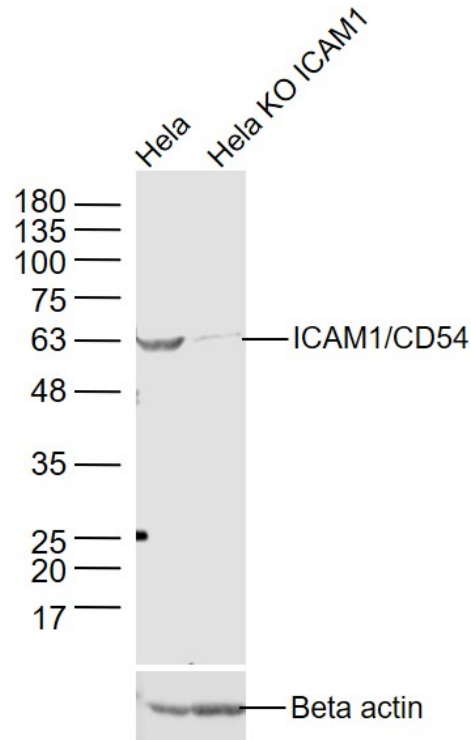
[SwissProt: Q00238](#) Rat

[Unigene: 435508](#) Mouse

[Unigene: 12](#) Rat

CD54 (ICAM-1) 是分子量为 60-110KD 的膜型 glycoprotein，表达于单核和 endothelial cells。许多细胞如 B 或 T lymphocyte、胸腺细胞、纤维母细胞和 epithelial cells 都可诱导表达 CD54，在调节免疫和炎症反应中 CD54 有重要作用。

**Product  
Picture**



**Sample:**

HeLa(Human) Cell Lysate at 30 ug

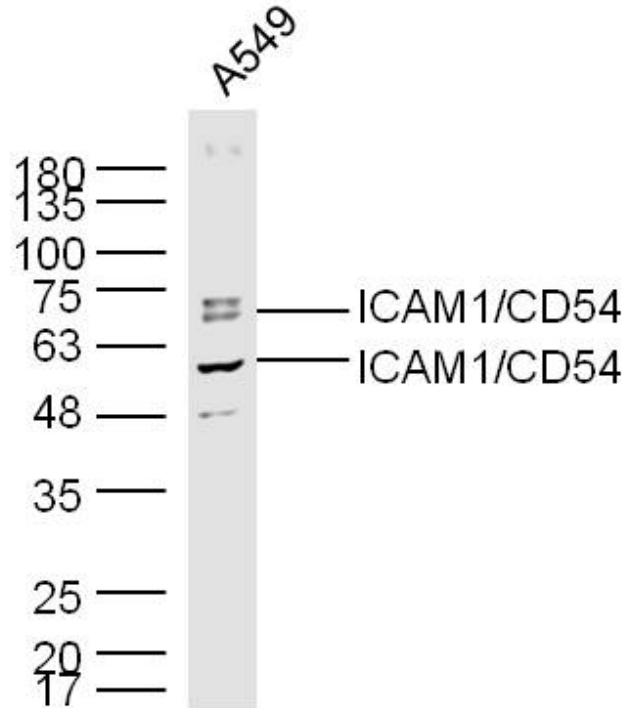
HeLa KO ICAM1 (Human) Cell Lysate at 30 ug

Primary: Anti-ICAM1/CD54 (SL0608R) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 56 kD

Observed band size: 56 kD



Sample:

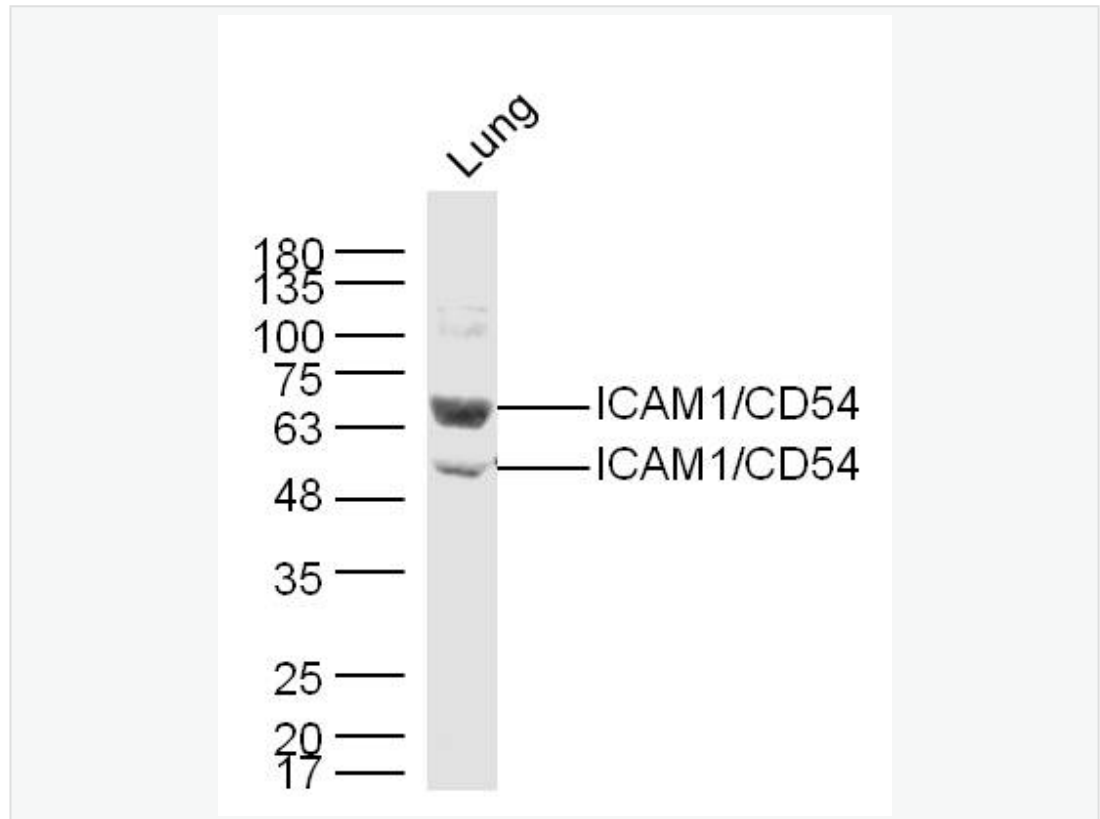
A549(Human) Cell Lysate at 30 ug

Primary: Anti-ICAM1 (SL0608R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 56 kD

Observed band size: 56/69 kD



Sample:

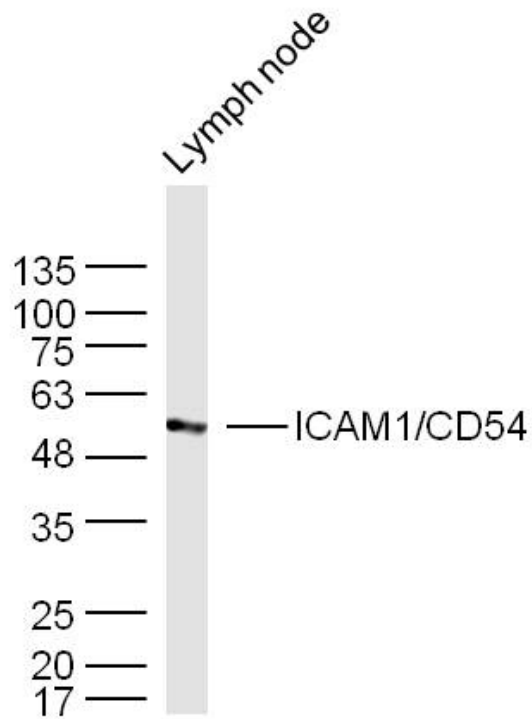
Lung (Mouse) Lysate at 40 ug

Primary: Anti-ICAM1 (SL0608R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 56 kD

Observed band size: 56/69 kD



Sample:

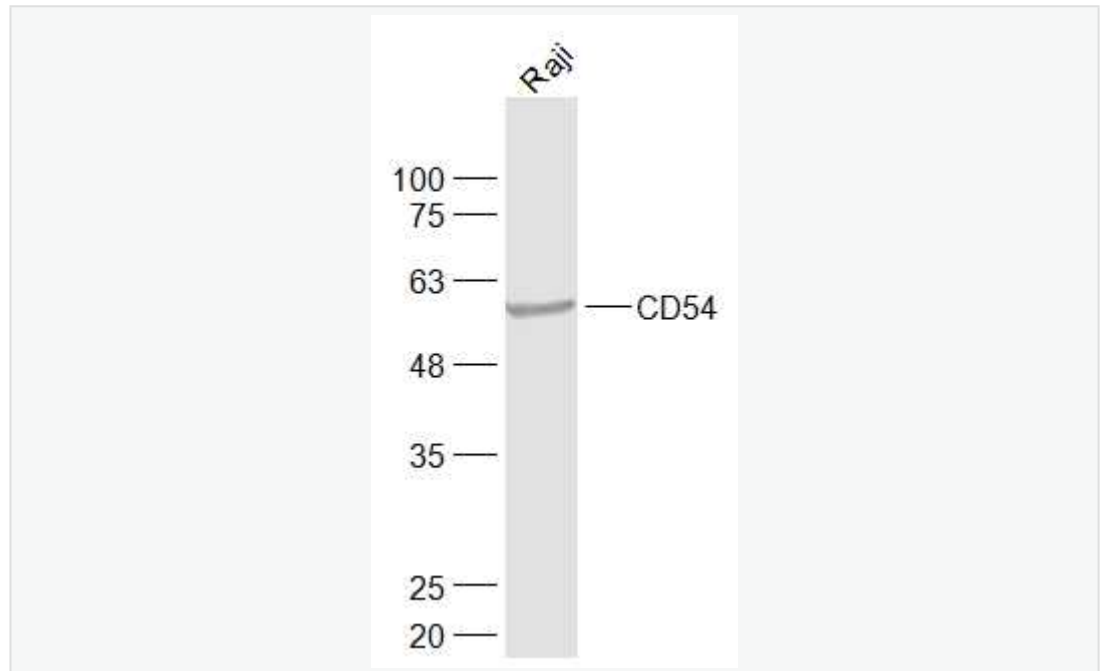
Lymph node (Mouse) Lysate at 40 ug

Primary: Anti-ICAM1 (SL0608R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 56 kD

Observed band size: 56 kD



Sample:

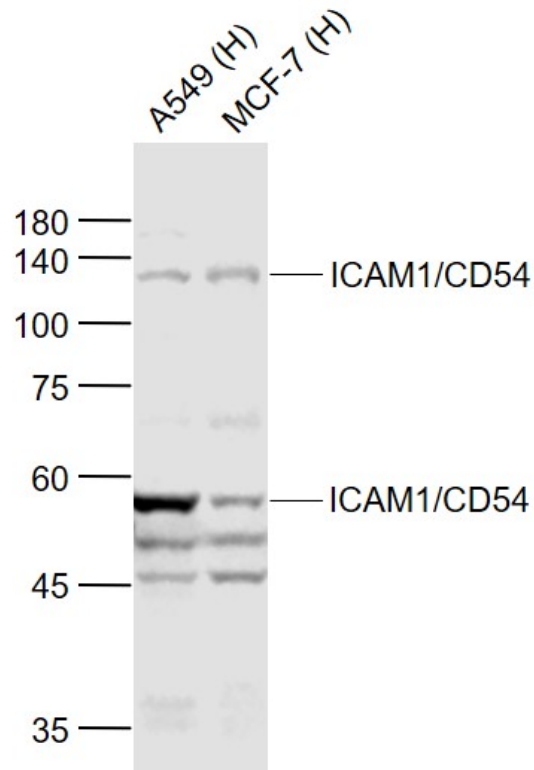
Raji(Human) Cell Lysate at 30 ug

Primary: Anti-CD54 (SL0608R) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 56 kD

Observed band size: 56 kD



Sample:

Lane 1: A549 (Human) Cell Lysate at 30 ug

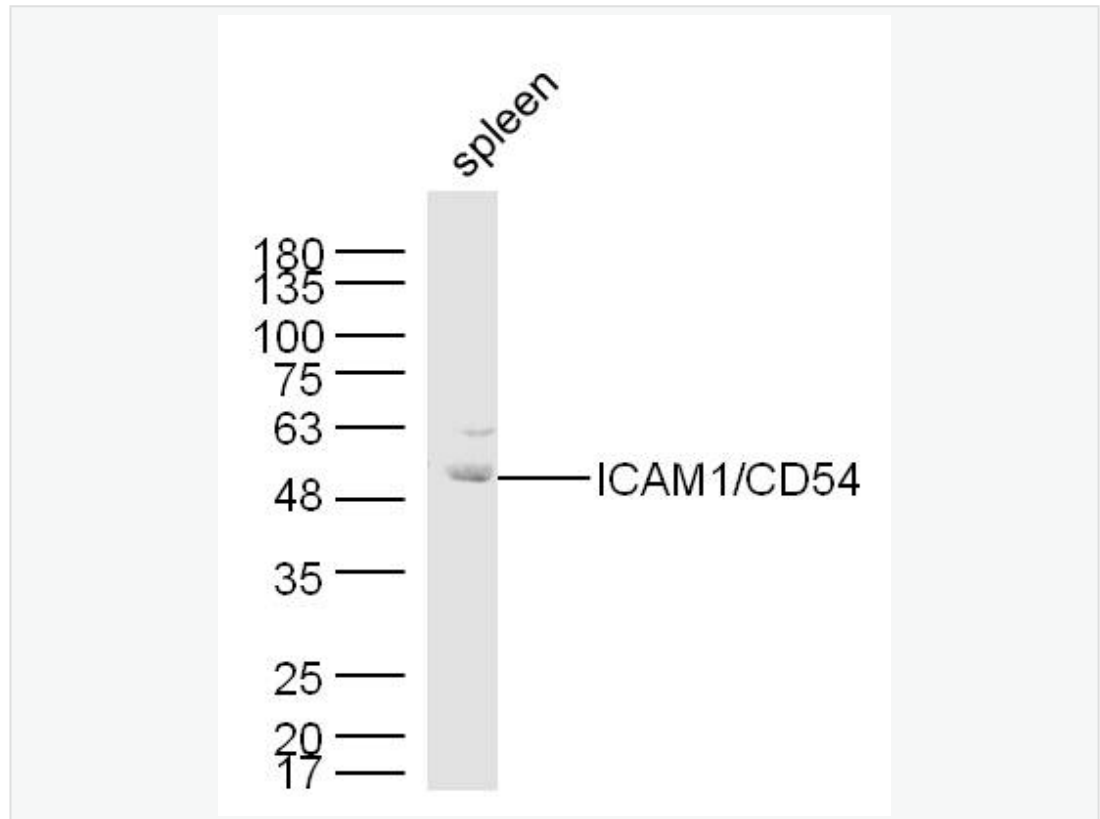
Lane 2: MCF-7 (Human) Cell Lysate at 30 ug

Primary: Anti-ICAM1/CD54 (SL0608R) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 110/58 kD

Observed band size: 110/58 kD



Sample:

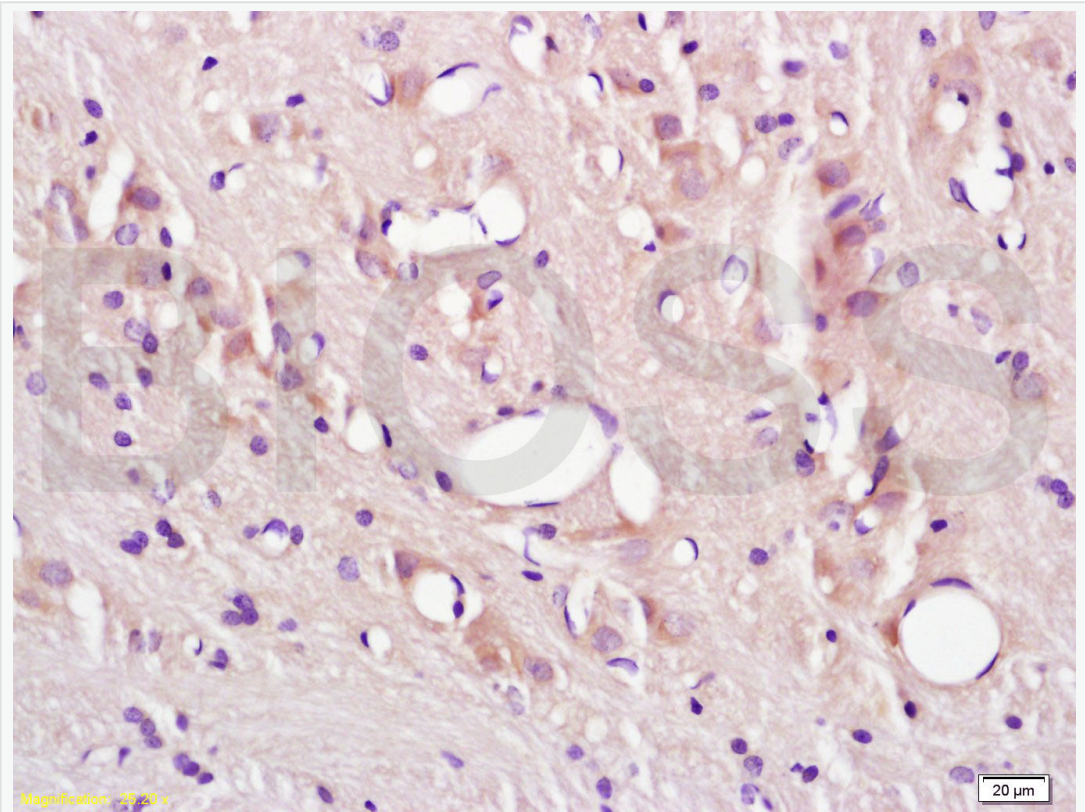
Spleen (Mouse) Lysate at 40 ug

Primary: Anti-ICAM1 (SL0608R) at 1/300 dilution

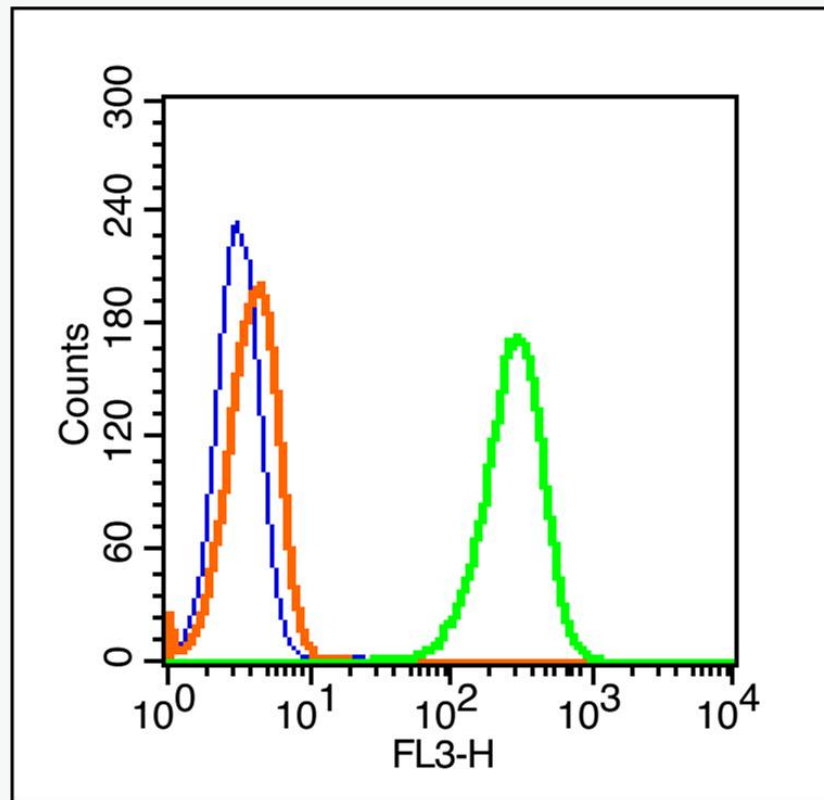
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 56 kD

Observed band size: 56/69 kD



Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;  
Antigen retrieval: citrate buffer ( Human1M, pH 6.0 ), Boiling bathing for 15min;  
Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking  
buffer (normal goat serum,C-0005) at 37°C for 20 min;  
Incubation: Anti-CD54/ICAM-1 Polyclonal Antibody, Unconjugated(SL0608R)  
1:200, overnight at 4°C, followed by conjugation to the secondary  
antibody(SP-0023) and DAB(C-0010) staining



Blank control (blue line): A431 cells(blue).

Primary Antibody (green line): Rabbit Anti-ICAM1/PE-CY7 Conjugated antibody (SL0608R-PE-CY7)

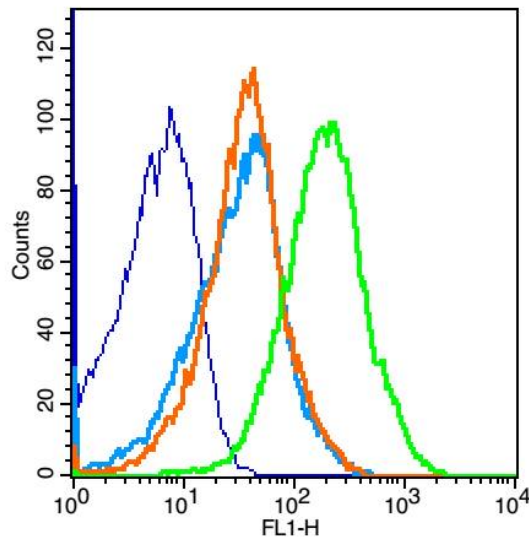
Dilution:  $1\mu\text{g}/10^6$  cells;

Isotype Control Antibody (orange line): Rabbit IgG-PE-CY7 .

#### Protocol

The cells were fixed with 70% ice-cold methanol overnight at  $4^{\circ}\text{C}$  . The cells were then incubated in 1 X PBS/2%BSA/10% goat serum to block non-specific protein-protein interactions followed by the antibody for 15 min at room temperature. Cells stained with Primary Antibody for 30 min at room

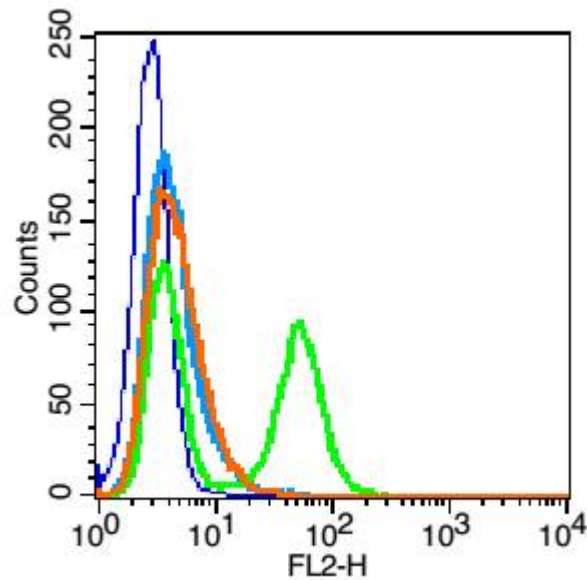
temperature.Acquisition of 20,000 events was performed.



| Key | Name                            | Parameter | Gate |
|-----|---------------------------------|-----------|------|
| —   | (mo)Thymocyte-blank.039         | FL1-H     | G1   |
| —   | bs-0295G-FITC-(mo)Th#1E6233.040 | FL1-H     | G1   |
| —   | bs-0295P-(FITC)-(mo)#1E6234.041 | FL1-H     | G1   |
| —   | bs-0608R-(FITC)-(mo)#1E623B.045 | FL1-H     | G1   |

Blank control: mouse thymouses(blue)

Isotype Control Antibody: Rabbit IgG(orange) ; Secondary Antibody: Goat anti-rabbit IgG-FITC(white blue), Dilution: 1:100 in 1 X PBS containing 0.5% BSA ; Primary Antibody Dilution: 1 $\mu$ L in 100  $\mu$ L 1X PBS containing 0.5% BSA(green).



Blank control: HUVEC cells(blue).

Primary Antibody:Rabbit Anti-CD54 antibody(SL0608R), Dilution: 1 $\mu$ g in 100  $\mu$ L 1X PBS containing 0.5% BSA;

Isotype Control Antibody: Rabbit IgG(orange) ,used under the same conditions );

Secondary Antibody: Goat anti-rabbit IgG-PE(white blue), Dilution: 1:200 in 1 X PBS containing 0.5% BSA.

#### Protocol

The cells were fixed with 2% paraformaldehyde (10 min) .Primary antibody (SL0608R, 1 $\mu$ g /1x10<sup>6</sup> cells) were incubated for 30 min on the ice, followed by 1 X PBS containing 0.5% BSA + 1 0% goat serum (15 min) to block non-specific protein-protein interactions. Then the Goat Anti-rabbit IgG/PE antibody was added into the blocking buffer mentioned above to react with the primary antibody



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at 1/200 dilution for 30 min on ice. Acquisition of 20,000 events was performed.