

## CD54 polyclonal antibody

Catalog: BS67788

Host: Rabbit

Reactivity: Human, Mouse, Rat

### BackGround:

Intercellular cell adhesion molecule-1 (CD54 or ICAM-1) is a cell surface glycoprotein that belongs to the immunoglobulin superfamily (IgSF) of adhesion molecules. CD54 is expressed at low levels in diverse cell types, and is induced by cytokines (TNF- $\alpha$ , interleukin-1) and bacterial lipopolysaccharide. Apical localization of CD54 on endothelial cells (or basolateral localization on epithelial cells) is a prerequisite for leukocyte trafficking through the endothelial (or epithelial) barrier. Apical expression of CD54 on epithelial cells mediates pathogen invasion as well as host defense, a pattern also observed in tumors. CD54 also functions as a co-stimulator on antigen presenting cells, binding to its receptor LFA-1 (leukocyte function-associated antigen-1) on the surface of T cells during antigen presentation. Cross-linking of CD54 or binding to its ligand triggers activation of Src family kinases and the Rho/ROCK pathway. Phosphorylation on Tyr485 of CD54 is required for its association with SHP-2. SHP-2 seems essential for CD54-induced Src activation.

### Product:

Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.

### Molecular Weight:

~ 95 kDa

### Swiss-Prot:

P05362

### Purification&Purity:

The antibody was purified by immunogen affinity chromatography.

### Applications:

WB (1/500 - 1/1000), IHC (1/50 - 1/100), IF/ICC (1/50 - 1/100)

### Storage&Stability:

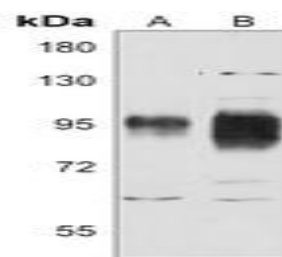
Store at 4 °C short term. Aliquot and store at -20 °C long

term. Avoid freeze-thaw cycles.

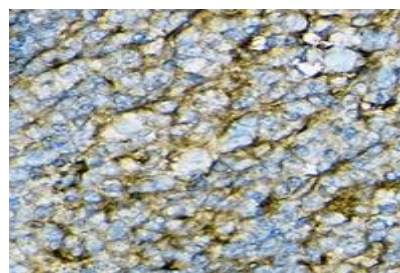
### Specificity:

Recognizes endogenous levels of CD54 protein.

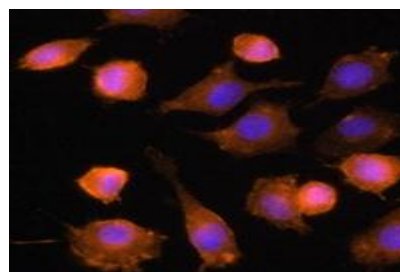
### DATA:



Western blot analysis of CD54 expression in A549 IFN- $\alpha$  treated (A), A549 IFN- $\gamma$  treated (B) whole cell lysates.



Immunohistochemical analysis of CD54 staining in human tonsil formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of CD54 staining in L929 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for

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## PRODUCT DATA SHEET

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5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a AF594-conjugated sec-

ondary antibody (red) in PBS at room temperature in the dark. DAPI was used to stain the cell nuclei (blue).

**Note:**

For research use only, not for use in diagnostic procedure.

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