Catalog # IC1-H5250



#### Synonym

ICAM1,BB2,CD54,P3.58

### Source

Human ICAM-1, Fc Tag(IC1-H5250) is expressed from human 293 cells (HEK293). It contains AA Gln 28 - Glu 480 (Accession # <u>AAH15969</u>). Predicted N-terminus: Gln 28

# **Molecular Characterization**

ICAM-1(Gln 28 - Glu 480) Fc(Pro 100 - Lys 330) AAH15969 P01857

This protein carries a human IgG1 Fc tag at the C-terminus.

The protein has a calculated MW of 75.7 kDa. The protein migrates as 90-120 kDa when calibrated against <u>Star Ribbon Pre-stained Protein Marker</u> under reducing (R) condition (SDS-PAGE) due to glycosylation.

## Endotoxin

Less than 1.0 EU per  $\mu g$  by the LAL method.

# Purity

>95% as determined by SDS-PAGE.

## Formulation

Lyophilized from 0.22  $\mu$ m filtered solution in 50 mM Tris, 100 mM Glycine, 150 mM NaCl, pH7.5 with trehalose as protectant.

Contact us for customized product form or formulation.

### Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

### Storage

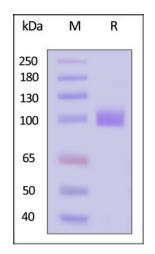
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- $70^{\circ}$ C for 3 months under sterile conditions after reconstitution.

# **SDS-PAGE**



Human ICAM-1, Fc Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With <u>Star Ribbon Pre-stained Protein Marker</u>).

#### **Bioactivity-ELISA**



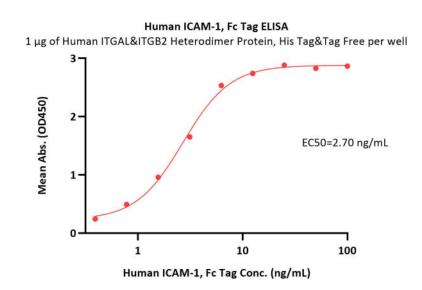
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# Human ICAM-1 / CD54 Protein, Fc Tag

Catalog # IC1-H5250





Immobilized Human ITGAL&ITGB2 Heterodimer Protein, His Tag&Tag Free (Cat. No. IT2-H53W3) at 10  $\mu$ g/mL (100  $\mu$ L/well) can bind Human ICAM-1, Fc Tag (Cat. No. IC1-H5250) with a linear range of 0.4-6 ng/mL (QC tested).

#### Background

Inter-Cellular Adhesion Molecule 1 (ICAM-1) is also known as Cluster of Differentiation 54 (CD54), is a member of the immunoglobulin superfamily, and is a cell surface glycoprotein which is typically expressed in low concentrations on endothelial cells and cells of the immune system. The protein encoded by this gene is a type of intercellular adhesion molecule continuously present in low concentrations in the membranes of leukocytes and endothelial cells. Upon cytokine stimulation, the concentrations greatly increase. ICAM-1 can be induced by interleukin-1 (IL-1) and tumor necrosis factor alpha (TNF $\alpha$ ) and is expressed by the vascular endothelial cells via ICAM-1 is a ligand for LFA-1 (integrin), a receptor found on leukocytes. When activated, leukocytes bind to endothelial cells via ICAM-1/LFA-1 and then transmigrate into tissues. ICAM-1 has been implicated in subarachnoid hemorrhage (SAH). Levels of ICAM-1 are shown to be significantly elevated in patients with SAH over control subjects in many studies. ICAM-1 expressed by respiratory epithelial cells is also the binding site for rhinovirus, the causative agent of most common colds.

#### **Clinical and Translational Updates**



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