



# Recombinant Protein Technical Manual

## Recombinant Human ICAM/CD54 Protein

RPES4033

### Product Data:

**Product SKU:** RPES4033

**Size:** 50µg

**Species:** Human

**Expression host:** HEK293 Cells

**Uniprot:** NP\_000192.2

### Protein Information:

**Molecular Mass:** 51 kDa

**AP Molecular Mass:**

**Tag:**

**Bio-activity:**

**Purity:** > 95 % as determined by reducing SDS-PAGE.

**Endotoxin:** < 1.0 EU per µg of the protein as determined by the LAL method.

**Storage:** Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from sterile Tris 50mM, NaCl 100mM, pH 8.0

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:**

**Synonyms:** Intercellular Adhesion Molecule 1; ICAM; Major Group Rhinovirus Receptor; CD54; ICAM1

## Immunogen Information:

**Sequence:** Met 1-Glu 480

## Background:

Intercellular adhesion molecule (ICAM, or CD54) is a 90 kDa member of the immunoglobulin (Ig) superfamily and is critical for the firm arrest and transmigration of leukocytes out of blood vessels and into tissues. ICAM is constitutively present on endothelial cells, but its expression is increased by proinflammatory cytokines. The endothelial expression of ICAM is increased in atherosclerotic and transplant-associated atherosclerotic tissue and in animal models of atherosclerosis. Additionally, ICAM has been implicated in the progression of autoimmune diseases. ICAM is a ligand for LFA(integrin). When activated, leukocytes bind to endothelial cells via ICAM/LFA interaction and then transmigrate into tissues. Presence with heavy glycosylation and other structural characteristics, ICAM possesses binding sites for a number of immune-associated ligands and serves as the binding site for entry of the major group of human Rhinovirus (HRV) into various cell types. ICAM also becomes known for its affinity for Plasmodium falciparum-infected erythrocytes (PFIE), providing more of a role in infectious disease. Previous studies have shown that ICAM is involved in inflammatory reactions and that a defect in ICAM gene inhibits allergic contact hypersensitivity.