

**DESCRIPTION**

<b>Source</b>	Mouse myeloma cell line, NS0-derived mouse ICAM-1/CD54 protein		
	Mouse ICAM-1 (Gln28-Asn485) Accession # Q3U8M7	IEGRMD	Human IgG <sub>1</sub> (Pro100-Lys330)
	N-terminus		C-terminus
<b>N-terminal Sequence</b>	Gln28		
<b>Analysis</b>			
<b>Structure / Form</b>	Disulfide-linked homodimer		
<b>Predicted Molecular Mass</b>	76.8 kDa (monomer)		

**SPECIFICATIONS**

<b>SDS-PAGE</b>	110-130 kDa, reducing conditions
<b>Activity</b>	Measured by the ability of the immobilized protein to support the adhesion of PMA-stimulated HSB2 human peripheral blood acute lymphoblastic leukemia cells. When $5 \times 10^4$ cells/well are added to rmlCAM/Fc Chimera coated plates (12.5 µg/mL with 100 µL/well), approximately 65-95% will adhere after 1 hour incubation at 37 °C. <b>Optimal dilutions should be determined by each laboratory for each application.</b>
<b>Endotoxin Level</b>	<0.10 EU per 1 µg of the protein by the LAL method.
<b>Purity</b>	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

**PREPARATION AND STORAGE**

<b>Reconstitution</b>	Reconstitute at 0.4 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> <li>• 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>• 3 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

**BACKGROUND**

Intercellular Adhesion Molecule-1 (ICAM-1, CD54) binds the leukocyte integrins LFA-1 and Mac-1. ICAM-1 expression is weak on leukocytes, epithelial and resting endothelial cells, as well as some other cell types, but expression can be stimulated by IFN-γ, TNF-α, IL-1β and LPS. Mouse and human ICAM-1 share approximately 54% amino acid identity.

Soluble ICAM-1 is found in a biologically active form in serum, probably as a result of proteolytic cleavage from the cell surface, and is elevated in patients with various inflammatory syndromes such as septic shock, leukocyte adhesion deficiency syndrome (LAD), cancer and transplantation.

**References:**

1. Pigott, R. and C. Power (1993) in *The Adhesion Molecule Facts Book*. Academic Press, p. 74.
2. Siu, G. *et al.* (1989) *J. Immunol.* **143**:3813.
3. Ballantyne, C.M. *et al.* (1989) *Nuc. Acid. Res.* **17**:5853.