Recombinant Human ICAM-1/CD54 Protein (His Tag)

Catalog Number: PKSH031661

Note: Centrifuge before opening to ensure complete recovery of vial contents.

Description	
Species	Human
Source	HEK293 Cells-derived Human ICAM-1/CD54 protein Met 1-Glu 480, with an C-terminal
	His
Calculated MW	51.0 kDa
Observed MW	65-70 kDa
Accession	NP_000192.2
Bio-activity	Measured by the ability of the immobilized protein to support the adhesion of PMA-
	stimulated HSB2 human peripheral blood acute lymphoblastic leukemia cells. When
	cells are added to ICAM1-coated plates (12.5 μ g/ml, 100 μ l/well), approximately 30%-
	60% will adhere specifically.
Properties	
Purity	> 98 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.
Storage	Generally, 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 $< -20^{\circ}$ C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile PBS, pH 7.4
	Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants
	before lyophilization.
	Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.



KDa	MK dence R
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45.0	Elabscieur
35.0	Elabectence
25.0	Elabsor
18.4	oscience
14.4	

> 98 % as determined by reducing SDS-PAGE.

Background

For Research Use Only

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Intercellular adhesion molecule-1 (ICAM-1, 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-1 is constitutively present on endothelial cells, but its expression is increased by proinflammatory cytokines. The endothelial expression of ICAM-1 is increased in atherosclerotic and transplant-associated atherosclerotic tissue and in animal models of atherosclerosis. Additionally, ICAM-1 has been implicated in the progression of autoimmune diseases. ICAM-1 is a ligand for LFA-1(integrin). When activated, leukocytes bind to endothelial cells via ICAM-1/LFA-1 interaction and then transmigrate into tissues. Presence with heavy glycosylation and other structural characteristics, ICAM-1 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-1 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-1 is involved in inflammatory reactions and that a defect in ICAM-1 gene inhibits allergic contact hypersensitivity.