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

Catalog Number: PKSR030397

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

Description		
Species	Rat	
Source	HEK293 Cells-derived Rat ICAM-1/CD54 protein Met 1-Thr 493, with an C-terminal	
	His	
Calculated MW	52.7 kDa	
Observed MW	70-75 kDa	
Accession	Q00238-1	
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 rat ICAM1 coated plates ($12.5\mu g/mL$, $100\mu L/well$), approximately > 30% cells will adhere specificall	
Properties		
Purity	> 97 % 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°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	М	
116		
66.2	- '	-
45.0	-	
35.0	-	
25.0	-	
18.4 14.4	=	

> 97 % as determined by reducing SDS-PAGE.

Background

Elabscience®

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.