

ICAM-1/CD54 Protein, Mouse (HEK293, His-Fc)

Cat. No.:	HY-P73112
Synonyms:	Intercellular Adhesion Molecule 1; ICAM-1; CD54
Species:	Mouse
Source:	HEK293
Accession:	P13597 (Q28-N485)
Gene ID:	15894
Molecular Weight:	120-130 kDa

PROPERTIES

Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	ICAM-1/CD54 protein emerges as a pivotal component in mediating cellular interactions, serving as a ligand for the leukocyte adhesion protein LFA-1 (integrin alpha-L/beta-2). Notably, during the trans-endothelial migration of leukocytes, ICAM-1 engagement plays a crucial role in facilitating the assembly of endothelial apical cups through ARHGEF26/SGEF and RHOG activation. This intricate molecular process, resembling other members of the ICAM family, underscores ICAM-1's involvement in regulating immune responses and inflammatory reactions. Beyond its role in leukocyte adhesion, ICAM-1 functions as a homodimer and interacts with MUC1, promoting cell aggregation in epithelial cells. Additionally, ICAM-1 establishes interactions with ARHGEF26/SGEF and associates with CD81, CD247, and CD9 on the T cell side, contributing to the formation of immunological synapses between antigen-presenting cells and T cells. These multifaceted interactions highlight the diverse functions of ICAM-1 in cellular adhesion and immune modulation.
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Caution: Product has not been fully validated for medical applications. For research use only.

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