Recombinant Human CD50/ICAM-3 Protein (His & Fc Tag)

Catalog No. PKSH031676

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

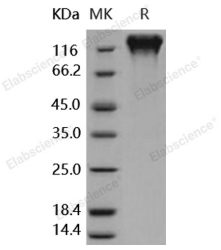
Description

Synonyms	CD50;CDW50;ICAM-3;ICAM-R
Species	Human
Expression Host	HEK293 Cells
Sequence	Met 1-His 485
Accession	NP_002153.2
Calculated Molecular Weight	77.2 kDa
Observed molecular weight	125-135 kDa
Tag	C-His-Fc
Bioactivity	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 ICAM3-coated plates (12.5 μg/ml, 100 μl/well), approximately 45%-60% will adhere specifically.

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℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ 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% Tween80 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.

Data



> 97 % as determined by reducing SDS-PAGE.

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Background

The protein ICAM-3, also known as CD50, is a member of the intercellular adhesion molecule (ICAM) family consisting three members. It is a DC-SIGN ligand that is constitutively expressed on resting leukocytes, and is thus an important molecule for the first immune response. ICAM-3 comprises of five immunoglobulin-like domains, and binds LFA-1 through its two N-terminal domains. It functions not only as an adhesion molecule, but also as a potent signalling molecule. ICAM-3 binds to LFA-1 on antigen-presenting cells (APC) stabilizing the T cell-APC interaction, facilitating signaling through the CD3/TCR complex. However, recent evidence using cultured and transformed T cells suggests ICAM-3 may also function in signaling. It has been reported that CD50 molecule can play a role in developing functionally mature T lymphocytes and its expression increases during the maturation process of T lymphocytes. In addition, the interactions of ICAM-3 and LFA-1 facilitate HIV-1- induced virological synapse formation between T cells. ICAM-3 is associated with an increase of cellular radio-resistance and cancer cell proliferation. It could be considered as a candidate for anti-cancer drug development and as a cancer diagnostic marker.

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