

Recombinant Anti-CD278 Rabbit mAb

Catalog # AP95276

Product Information

Application	WB, FC, IF/IC
Primary Accession	Q9Y6W8
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Monoclonal
Calculated MW	22625

Additional Information

Gene ID	29851
Other Names	AILIM; Inducible T-cell costimulator; Activation-inducible lymphocyte immunomediatory molecule; CD278
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within human CD278 protein. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000) FC~~1:10~50 IF/IC~~N/A
Format	Liquid in PBS, pH 7.3, 50% glycerol, 0.05% BSA, and 0.05% Proclin300.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name	ICOS
Synonyms	AILIM
Function	Stimulatory receptor expressed in activated or antigen- experienced T-cells that plays an important role in the immune response (PubMed: 9930702). Upon binding to its ligand ICOSL expressed on antigen presenting cells (APCs), delivers costimulatory signals that enhances all basic T-cell responses to a foreign antigen, namely proliferation, secretion of lymphokines including IL10, up-regulation of molecules that mediate cell-cell interaction, and effective help for antibody secretion by B-cells (PubMed: 33033255). Also acts as a costimulatory receptor critical for the differentiation of T follicular regulatory cells upon immune challenges such as viral infection (PubMed: 27135603). Mechanistically, potentiates TCR-induced calcium flux by augmenting PLCG1 activation and actin remodeling (By similarity). In addition, activates PI3K signaling pathways independently of calcium flux (PubMed: 30523347). Essential both for efficient interaction between T and B-cells and for normal antibody responses to T-cell dependent antigens.

Prevents the apoptosis of pre-activated T-cells. Plays a critical role in CD40-mediated class switching of immunoglobulin isotypes (By similarity).

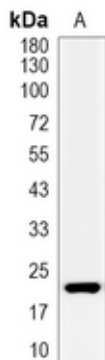
Cellular Location

[Isoform 1]: Cell membrane; Single-pass type I membrane protein

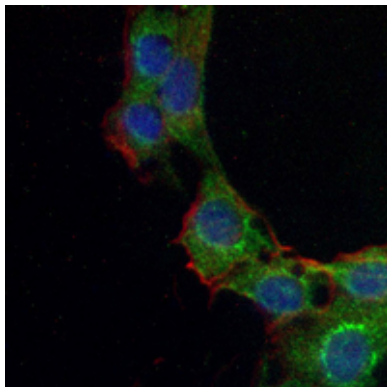
Tissue Location

Activated T-cells. Highly expressed on tonsillar T- cells, which are closely associated with B-cells in the apical light zone of germinal centers, the site of terminal B-cell maturation Expressed at lower levels in thymus, lung, lymph node and peripheral blood leukocytes. Expressed in the medulla of fetal and newborn thymus

Images



Western blot analysis of CD278 expression in Jurkat (A) whole cell lysates. (Predicted band size: 23 kD; Observed band size: 22 kD)



Immunofluorescent analysis of CD278 staining in Jurkat cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with an AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

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