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CLEC 4E Rabbit pAb

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Catalog # AP59030

Product Information

Primary Accession	Q9ULY5
Reactivity	Human
Predicted	Rat, Mouse, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	25073
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human CLECSF9
Epitope Specificity	51-150/219
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Membrane.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	C-type lectin that functions as cell-surface receptor for a wide variety of ligands such as damaged cells, fungi and mycobacteria. Plays a role in the recognition of pathogenic fungi, such as Candida albicans. The detection of mycobacteria is via trehalose 6,6'-dimycolate (TDM), a cell wall glycolipid. Specifically recognizes alpha-mannose residues on pathogenic fungi of the genus Malassezia. Recognizes also SAP130, a nuclear protein, that is released by dead or dying cells. Transduces signals through an ITAM-containing adapter protein, Fc receptor gamma chain /FCER1G. Induces secretion of inflammatory cytokines through a pathway that depends on SYK, CARD9 and NF-kappa-B.

Additional Information

Gene ID	26253
Other Names	C-type lectin domain family 4 member E, C-type lectin superfamily member 9, Macrophage-inducible C-type lectin, MINCLE, CLEC4E {ECO:0000303|PubMed:24101491, ECO:0000312|HGNC:HGNC:14555}
Dilution	Flow-Cyt=2 □g/Test
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	CLEC4E {ECO:0000303|PubMed:24101491, ECO:0000312|HGNC:HGNC:14555}
Function	Calcium-dependent lectin that acts as a pattern recognition receptor (PRR) of the innate immune system: recognizes damage- associated molecular patterns (DAMPs) of abnormal self and pathogen- associated molecular patterns (PAMPs) of bacteria and fungi (PubMed:18509109, PubMed:23602766). The PAMPs notably include mycobacterial trehalose 6,6'-dimycolate (TDM), a cell wall glycolipid with potent adjuvant immunomodulatory functions (PubMed:23602766, PubMed:24101491). Interacts with signaling adapter Fc receptor gamma chain/FCER1G to form a functional complex in myeloid cells (By similarity). Binding of mycobacterial trehalose 6,6'-dimycolate (TDM) to this receptor complex leads to phosphorylation of the immunoreceptor tyrosine-based activation motif (ITAM) of FCER1G, triggering activation of SYK, CARD9 and NF-kappa-B, consequently driving maturation of antigen-presenting cells and shaping antigen-specific priming of T- cells toward effector T-helper 1 and T-helper 17 cell subtypes (By similarity). Also recognizes alpha-mannose residues on pathogenic fungi of the genus Malassezia and mediates macrophage activation (By similarity). Through recognition of DAMPs released upon nonhomeostatic cell death, enables immune sensing of damaged self and promotes inflammatory cell infiltration into the damaged tissue (By similarity).
Cellular Location	Cell membrane; Single-pass type II membrane protein. Cell projection, phagocytic cup {ECO:0000250|UniProtKB:Q9R0Q8}
Tissue Location	Expressed in monocytes and macrophages.

Background

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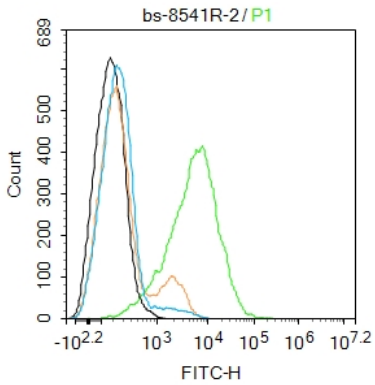
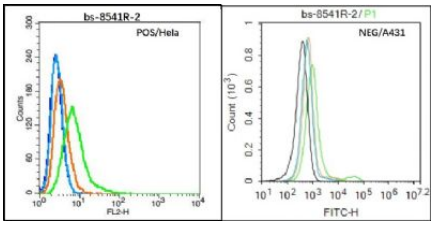
Images

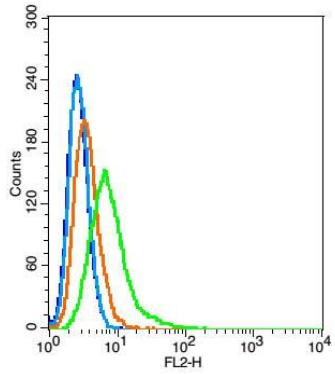


Blank control:THP-1.
Primary Antibody (green line): Rabbit Anti-CLEC 4E antibody (AP59030)
Dilution: 2 µg /10^6 cells;
Isotype Control Antibody (orange line): Rabbit IgG .
Secondary Antibody : Goat anti-rabbit IgG-FITC
Dilution: 0.5 µg /test.
Protocol
The cells were incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.

Black line : Positive blank control (Hela); Negative blank control (A431)
Green line : Primary Antibody (Rabbit Anti-CLEC 4E



antibody (AP59030))
Orange line：Isotype Control Antibody (Rabbit IgG) .
Blue line : Secondary Antibody (Goat anti-rabbit IgG-PE)/(Goat anti-rabbit IgG-AF488)
Hela(Positive)and A431(Negative control)cells (black) were incubated in 5% BSA blocking buffer for 30 min at room temperature. Cells were then stained with CLEC 4E Antibody(AP59030)at 1:50 dilution in blocking buffer and incubated for 30 min at room temperature, washed twice with 2% BSA in PBS, followed by secondary antibody(blue) incubation for 40 min at room temperature. Acquisitions of 20,000 events were performed. Cells stained with primary antibody (green), and isotype control (orange).



Blank control: Hela(blue), the cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with ice-cold 90% methanol for 30 min on ice.
Isotype Control Antibody: Rabbit IgG(orange) ; Secondary Antibody: Goat anti-rabbit IgG-PE(white blue), Dilution: 1:200 in 1 X PBS containing 0.5% BSA ; Primary Antibody Dilution: 5 µg in 100 µL1X PBS containing 0.5% BSA(green).