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CLEC12A Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP10037c

Product Information

Application	WB, E
Primary Accession	Q5QGZ9
Other Accession	NP_612210.4, NP_963917.2
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	30762
Antigen Region	178-206

Additional Information

Gene ID	160364
Other Names	C-type lectin domain family 12 member A, C-type lectin-like molecule 1, CLL-1, Dendritic cell-associated lectin 2, DCAL-2, Myeloid inhibitory C-type lectin-like receptor, MICL, CLEC12A, CLL1, DCAL2, MICL
Target/Specificity	This CLEC12A antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 178-206 amino acids from the Central region of human CLEC12A.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	CLEC12A Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CLEC12A {ECO:0000303|PubMed:16838277, ECO:0000312|HGNC:HGNC:31713}
Function	Myeloid inhibitory C-type lectin receptor that acts as a negative regulator of myeloid cell activation (PubMed:14739280, PubMed:15238421,

PubMed:16239426, PubMed:34234773, PubMed:38367667, PubMed:38386511, PubMed:39143217). Myeloid cell inhibition is required to limit proinflammatory pathways and protect against excessive inflammation (By similarity). Specifically recognizes and binds various structures, such as neutrophil extracellular traps (NETs) or monosodium urate crystals (PubMed:38367667, PubMed:38386511, PubMed:39143217). Also acts as a pattern-recognition receptor for pathogen-associated molecules, such as plasmodium hemozoin or mycobacterial micolic acid (PubMed:31269448, PubMed:36542980). Ligand-binding induces phosphorylation of its ITIM motif, followed by recruitment of tyrosine- protein phosphatases PTPN6 and PTPN11, which counteract tyrosine- protein kinase SYK, thereby preventing myeloid cell activation (PubMed:14739280, PubMed:16239426, PubMed:34234773). Acts as a pattern- recognition receptor for NETs in neutrophils: specifically recognizes DNA in NETs, leading to inhibit neutrophil activation and limit further NET formation (PubMed:39143217). This regulation is essential for controlling key neutrophil responses and limit NET-mediated inflammatory conditions (By similarity). Also recognizes dead cells by acting as a receptor for monosodium urate crystals, leading to down-regulate neutrophil activation (PubMed:38367667, PubMed:38386511). Binding to monosodium urate crystals also promotes the type I interferon response (By similarity). Acts as an inhibitor of natural killer (NK) cell cytotoxicity (PubMed:15238421). Also acts as an inhibitor of dendritic cell maturation in an IL10-dependent manner (PubMed:16239426).

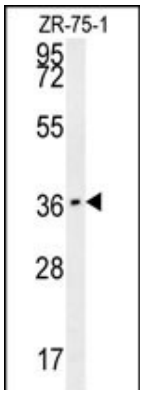
Cellular Location

Cell membrane; Single-pass type II membrane protein. Note=Ligand binding leads to internalization (PubMed:16239426). Clusters at phagocytic vesicles upon monosodium urate crystal-binding (PubMed:38367667)

Tissue Location

Preferentially expressed in lymphoid tissues and immune cells, including natural killer (NK) cells, T-cells, dendritic cells and monocytes or macrophages (PubMed:14739280, PubMed:15238421, PubMed:15548716, PubMed:16239426, PubMed:16838277). Detected in spleen macrophage-rich red pulp and in lymph node (at protein level) (PubMed:16838277). Detected in peripheral blood leukocytes, dendritic cells, bone marrow, monocytes, mononuclear leukocytes and macrophages (PubMed:16838277).

Images



CLEC12A Antibody (Center) (Cat. #AP10037c) western blot analysis in ZR-75-1 cell line lysates (35ug/lane).This demonstrates the CLEC12A antibody detected the CLEC12A protein (arrow).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.