

# Anti-CLEC12A / CD371 Reference Antibody (tepoditamab)

Recombinant Antibody

Catalog # APR10444

## Product Information

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Application	FC, Kinetics, Animal Model
Primary Accession	<a href="#">Q5QGZ9</a>
Reactivity	Human
Clonality	Monoclonal
Isotype	IgG1
Calculated MW	30762

## Additional Information

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Target/Specificity	CLEC12A / CD371
Endotoxin	
Conjugation	Unconjugated
Expression system	CHO Cell
Format	Purified monoclonal antibody supplied in PBS, pH6.0, without preservative. This antibody is purified through a protein A column.

## Protein Information

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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: <a href="#">14739280</a> , PubMed: <a href="#">15238421</a> , PubMed: <a href="#">16239426</a> , PubMed: <a href="#">34234773</a> , PubMed: <a href="#">38367667</a> , PubMed: <a href="#">38386511</a> , PubMed: <a href="#">39143217</a> ). 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: <a href="#">38367667</a> , PubMed: <a href="#">38386511</a> , PubMed: <a href="#">39143217</a> ). Also acts as a pattern-recognition receptor for pathogen-associated molecules, such as plasmodium hemozoin or mycobacterial micolic acid (PubMed: <a href="#">31269448</a> , PubMed: <a href="#">36542980</a> ). 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: <a href="#">14739280</a> , PubMed: <a href="#">16239426</a> , PubMed: <a href="#">34234773</a> ). 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: <a href="#">39143217</a> ). 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](#)).

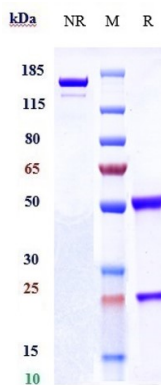
## Cellular Location

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](#))

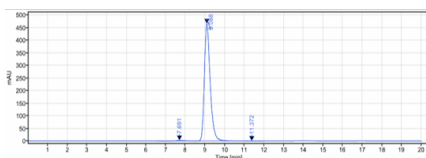
## Tissue Location

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



Anti-CLEC12A / CD371 Reference Antibody (tepoditamab) on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%



The purity of Anti-CLEC12A / CD371 Reference Antibody (tepoditamab) is more than 98.77%, determined by SEC-HPLC.

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