

HLDA10 VALIDATION FILE FOR CD371_CLEC12A/MICL

More than two antibodies that have same expression pattern Binding to transfectants

MOLECULE NAME	CLEC12A/MICL
ALTERNATIVE NAMES	C-type lectin domain family 12 member A; CLEC12A, C-type lectin protein CLL-1; CLL1, C-type lectin-like molecule-1; CL12A, dendritic cell associated lectin 2; Dendritic cell-associated lectin 2; DCAL-2; DCAL2; Myeloid inhibitory C-type lectin-like receptor MGC70602; MICL;
GENE FAMILY	C-type lectin domain
PROTEIN	Type II transmembrane glycoprotein
FUNCTION	Cell surface receptor that modulates signaling cascades and mediates tyrosine phosphorylation of target MAP kinases. 5
EXPRESSION	

ANTIBODY INFORMATION

10-17

Antibody Name	HB3
Specificity	Human MICL/CLEC12A
Antibody Species	Mouse
Ig Isotype	IgG1
Immunogen	hMICL-Fc fusion protein
Epitope Recognised	
Submitter	Gordon Brown
References	(1-4)

10-51

Antibody Name	Clone 687317, FAB2946P
Specificity	
Antibody Species	Mouse
Ig Isotype	IgG2b
Immunogen	NS0 derived recombinant human MICL (aa 67-265)
Epitope Recognised	
Submitter	R&D
References	

10-73

Antibody Name	50C1
Specificity	
Antibody Species	Mouse
Ig Isotype	IgG2a, κ
Immunogen	293T cells expressing CLEC12A-Flag
Epitope Recognised	
Submitter	BioLegend
References	

INFORMATION FOR CONFIRMATION OF SPECIFICITY

	10-17	10-51	10-73
Expression on transfected CHO	-	+	+
Expression on cell line	Yes	Yes	Yes
Expression on normal primary cell	Pos on monocytes and all DC populations Pos on thymic DC	Pos on monocytes and all DC populations Some varied expression on pDC between analysis Pos on thymic DC	Pos on monocytes and all DC populations Some varied expression on pDC between analysis Pos on thymic DC
In vitro derived cells	Pos on MoDC, downregulated in culture	Pos on MoDC, downregulated in culture	Pos on MoDC, downregulated in culture

CELL LINE EXPRESSION

	Cell lines	10-17	10-51	10-73
Burkitt lymphonma B cell lines	Raji	-	-	-
T cell leukemia	Jurkat	-	-	-
Myeloid Leukemia	HEL	-	-	-
	HL-60	+	+	+
	NB4			
	THP-1	-		
	U-937	+	+	+
Hodgkins derived line	KM-H2	-	-	-

Figure 1. Transient transfection of CHO-K1 with Clec12A cDNA was tested with Clec12A mAbs

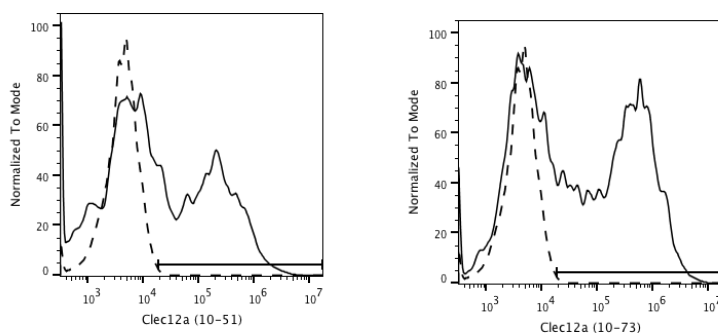


Figure 2: Binding of each antibody with fresh blood DC. Solid line = test antibody, dashed line = isotype control.

PUBLICATIONS USING ANTIBODIES

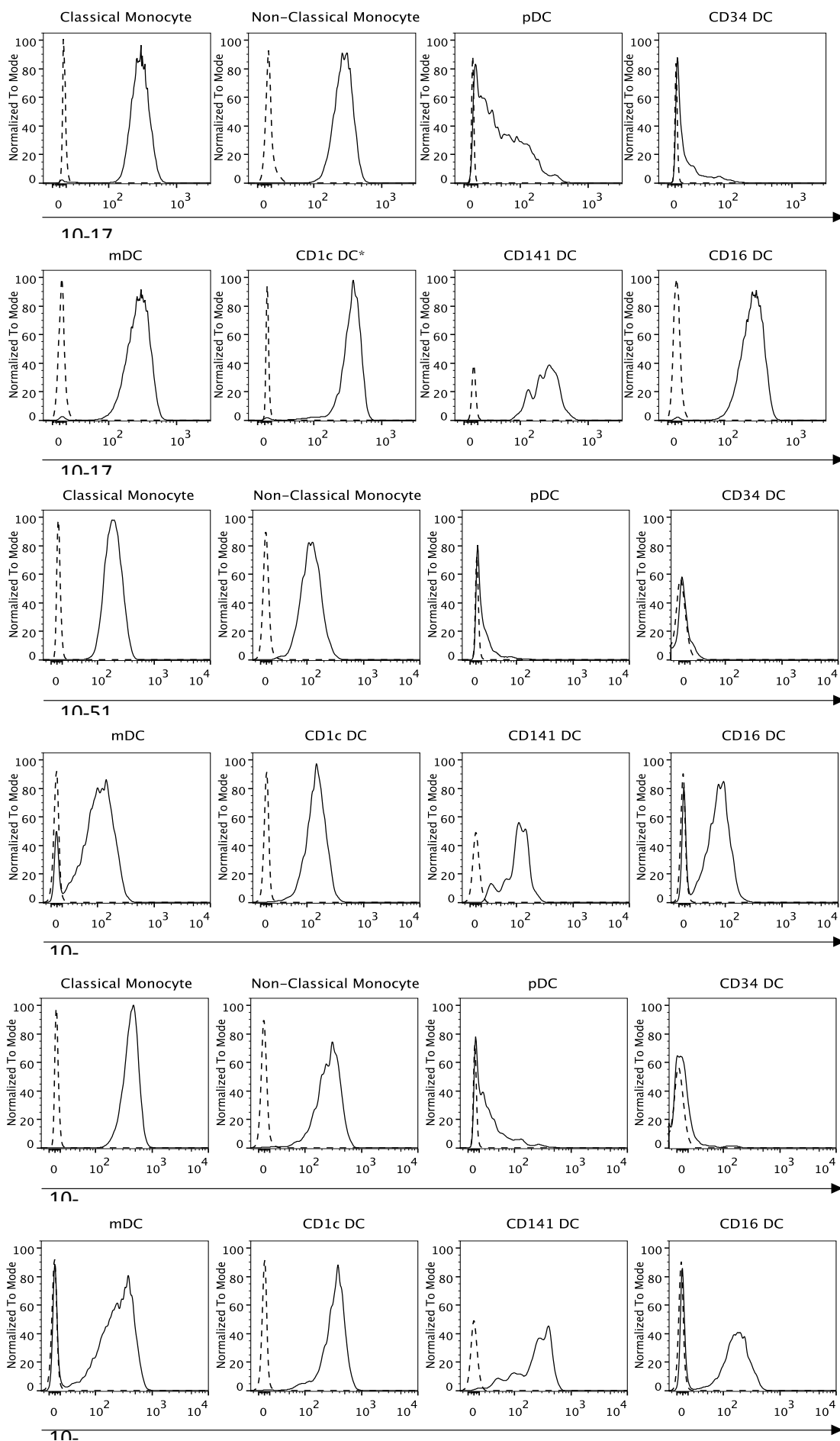
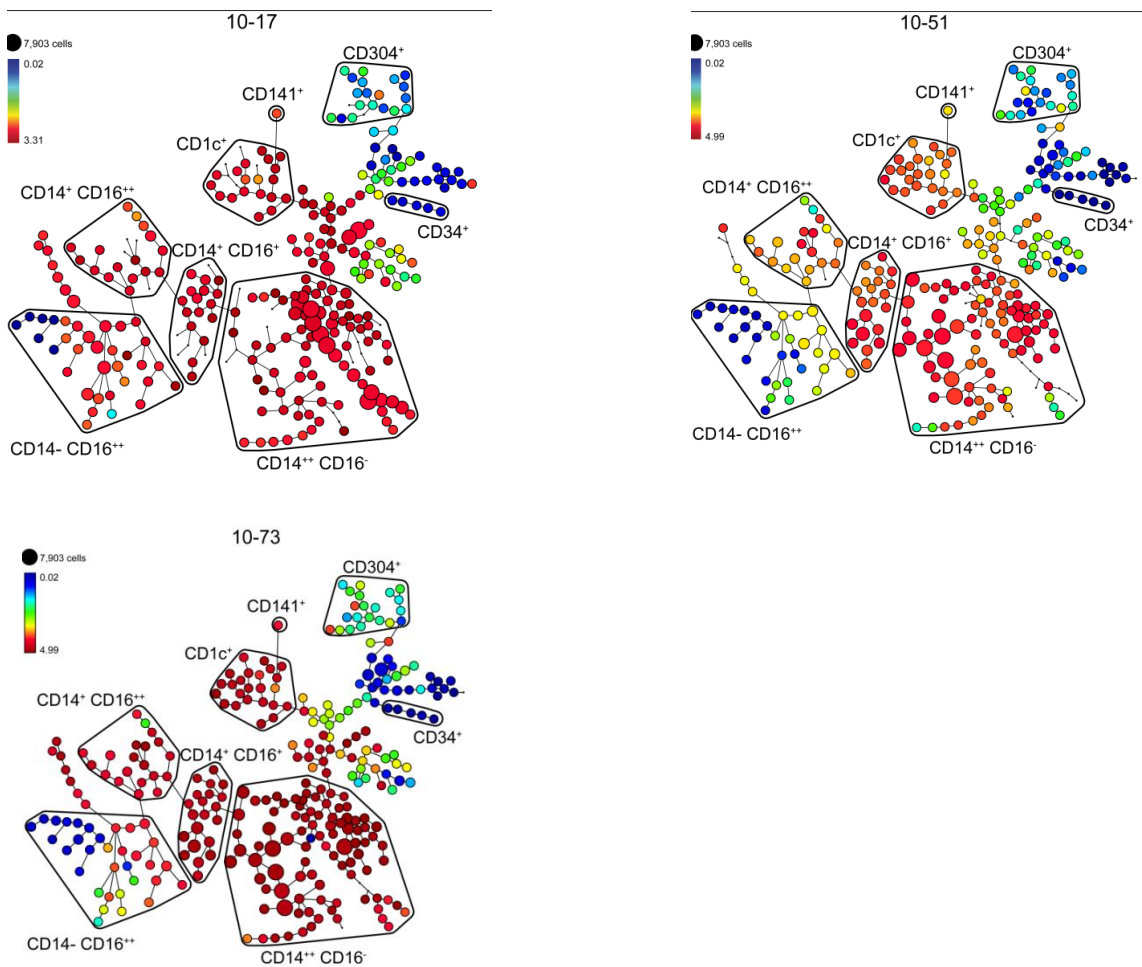


Figure 3. Clustering analysis using SPADE to demonstrate expression of CLEC12A antibodies on fresh blood DC



PUBLICATIONS USING MAb

(4, 5)

1. Gagne V, Marois L, Levesque JM, Galarneau H, Lahoud MH, Caminschi I, et al. Modulation of monosodium urate crystal-induced responses in neutrophils by the myeloid inhibitory C-type lectin-like receptor: potential therapeutic implications. *Arthritis research & therapy*. 2013;15(4):R73. Epub 2013/07/11.
2. Larsen HO, Roug AS, Just T, Brown GD, Hokland P. Expression of the hM1CL in acute myeloid leukemia-a highly reliable disease marker at diagnosis and during follow-up. *Cytometry Part B, Clinical cytometry*. 2012;82(1):3-8. Epub 2011/12/17.
3. Lahoud MH, Proietto AI, Ahmet F, Kitsoulis S, Eidsmo L, Wu L, et al. The C-type lectin Clec12A present on mouse and human dendritic cells can serve as a target for antigen delivery and enhancement of antibody responses. *J Immunol*. 2009;182(12):7587-94. Epub 2009/06/06.
4. Marshall AS, Willment JA, Pyz E, Dennehy KM, Reid DM, Dri P, et al. Human M1CL (CLEC12A) is differentially glycosylated and is down-regulated following cellular activation. *European journal of immunology*. 2006;36(8):2159-69. Epub 2006/07/14.
5. Huysamen C, Willment JA, Dennehy KM, Brown GD. CLEC9A is a novel activation C-type lectin-like receptor expressed on BDCA3+ dendritic cells and a subset of monocytes. *The Journal of biological chemistry*. 2008;283(24):16693-701. Epub 2008/04/15.