

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human DLEC/CLEC4C/BDCA-2 in direct ELISAs and Western blots.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human DLEC/CLEC4C/BDCA-2 Phe46-Ile213 Accession # Q8WTT0
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

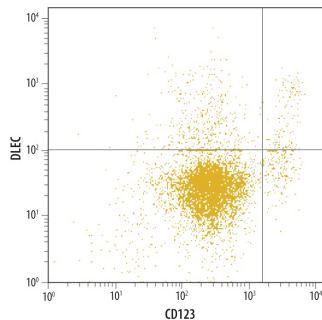
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	Recombinant Human DLEC/CLEC4C/BDCA2 Fc Chimera (Catalog # 1376-DL)
Flow Cytometry	2.5 µg/10 ⁶ cells	See Below
Immunohistochemistry	5-15 µg/mL	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

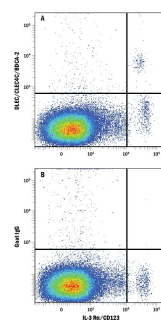
DATA

Flow Cytometry



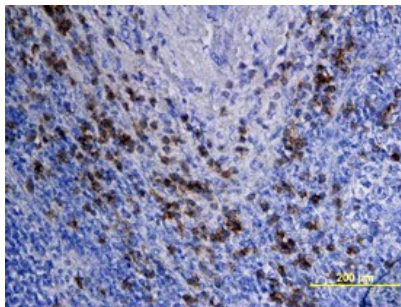
Detection of DLEC/CLEC4C/BDCA-2 in Human Whole Blood by Flow Cytometry. Human whole blood were stained with Goat Anti- Human DLEC/CLEC4C/BDCA-2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF1376) followed by Allophycocyanin-conjugated Anti-Goat IgG Secondary Antibody (Catalog # F0108) and Human IL-3 R α Phycoerythrin-conjugated Monoclonal Antibody (Catalog # FAB301P). Quadrant markers were set based on control antibody staining (Catalog # AB-108-C).

Flow Cytometry



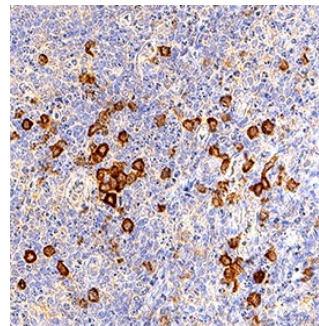
Detection of DLEC/CLEC4C/BDCA-2 in Human PBMCs by Flow Cytometry. Human peripheral blood mononuclear cells (PBMCs) were stained with Mouse Anti-Human IL-3 R α /CD123 APC-conjugated Monoclonal Antibody (Catalog # FAB301A) and either (A) Goat Anti-Human DLEC/CLEC4C/BDCA-2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF1376) or (B) Normal Goat IgG Control (Catalog # AB-108-C) followed by Allophycocyanin-conjugated Anti-Goat IgG Secondary Antibody (Catalog # F0108).

Immunohistochemistry



DLEC/CLEC4C/BDCA-2 in Human Lymph Node. DLEC/CLEC4C/BDCA-2 was detected in immersion fixed paraffin-embedded sections of human lymph node using Goat Anti-Human DLEC/CLEC4C/BDCA-2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF1376) at 15 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

Immunohistochemistry



DLEC/CLEC4C/BDCA-2 in Human Tonsil. DLEC/CLEC4C/BDCA-2 was detected in immersion fixed paraffin-embedded sections of human tonsil using Goat Anti-Human DLEC/CLEC4C/BDCA-2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF1376) at 3 µg/mL for 1 hour at room temperature followed by incubation with the Anti-Goat IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC004). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to lymphocytes. View our protocol for [IHC Staining with VisUCyte HRP Polymer Detection Reagents](#).

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Dendritic cell lectin (DLEC), also known as BDCA-2, CD303, HECL, and CLEC4C/CLECSF11/CLECSF7, is a 38 kDa type II transmembrane protein in the C-type lectin family (1). Mature human DLEC consists of a 21 amino acid (aa) cytoplasmic domain, a 23 aa transmembrane segment, and a 169 aa extracellular domain (ECD) that contains a juxtamembrane neck region and one carbohydrate recognition domain (CRD) (2, 3). Alternate splicing may generate multiple isoforms that lack the transmembrane segment and/or portions of the cytoplasmic, neck, and CRD regions (2-4). An ortholog of human DLEC has not been described in mouse or rat. DLEC expression is restricted to plasmacytoid dendritic cells (pDC) and is downregulated during their maturation (2, 3, 5). pDC play a role in the innate immune response by producing IFN- α/β following exposure to TLR7 and TLR9 agonists such as microbial CpG DNA (3, 5-8). Antibody ligation of DLEC on pDC attenuates the CpG-stimulated production of interferons as well as a Th1 biased response (3, 5-9). DLEC interactions with HIV-1 gp120 and hepatitis B virus soluble antigen may therefore limit the pDC antiviral response (10, 11). Similar to other C-type lectins, DLEC can mediate antigen uptake for MHC loading and presentation to T cells (3, 12). Crosslinking of DLEC on CpG-stimulated pDC inhibits pDC maturation and induces tyrosine phosphorylation on multiple proteins involved in B cell receptor signaling and endocytosis (5, 7, 8). These functions require the association of DLEC with the ITAM-containing Fc ϵ RI gamma chain (7, 8).

References:

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