Human DLEC/CLEC4C/BDCA-2 Alexa Fluor® 488-conjugated Antibody

Monoclonal Mouse IgG_1 Clone # 992258

Catalog Number: FAB62991G

100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human DLEC/CLEC4C/BDCA-2 in direct ELISAs.
Source	Monoclonal Mouse IgG_1 Clone # 992258
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	CHO Chinese hamster ovary cell line transfected with human DLEC/CLEC4C/BDCA-2 Phe46-Ile213 Accession # Q8WTT0
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

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.*

Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

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 Fcε RI gamma chain (7, 8).

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