

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 350 Excitation Wavelength: 346 nm Emission Wavelength: 442 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).

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.