

**DESCRIPTION**

<b>Source</b>	Mouse myeloma cell line, NS0-derived		
	Human IgG <sub>1</sub> (Ser102 - Lys330)	IEGR	Human DLEC (Phe46 - Ile213) Accession # Q8WTT0
	N-terminus		C-terminus
<b>N-terminal Sequence Analysis</b>	Ser102 (Fc)		
<b>Predicted Molecular Mass</b>	46 kDa		

**SPECIFICATIONS**

<b>SDS-PAGE</b>	55-61 kDa, reducing conditions
<b>Activity</b>	Measured by its ability to bind fluorescein-conjugated <i>S. aureus</i> Bioparticles. Jiang, Y. <i>et al.</i> (2006) J. Biol. Chem. <b>281</b> :11834. The ED <sub>50</sub> for this effect is typically 0.5-2.5 µg/mL.
<b>Endotoxin Level</b>	<1.0 EU per 1 µg of the protein by the LAL method.
<b>Purity</b>	>90%, by SDS-PAGE under reducing conditions and visualized by silver stain.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

**PREPARATION AND STORAGE**

<b>Reconstitution</b>	Reconstitute at 250 µg/mL in PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<p><b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b></p> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 3 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

**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- $\alpha/\beta$  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 $\epsilon$ RI gamma chain (7, 8).

**References:**

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