

Active Recombinant Human CLEC4C protein, Fc-tagged

Cat. No. CLEC4C-269H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human CLEC4C(Phe46-Ile213) fused Fc region of Human IgG1 at N-terminal was expressed in NS0.
Species	Human
Source	Mammalian Cells
ProteinLength	46-213 a.a.
Description	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. 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). Alternate splicing may generate multiple isoforms that lack the transmembrane segment and/or portions of the cytoplasmic, neck, and CRD regions. 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. 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. Antibody ligation of DLEC on pDC attenuates the CpG-stimulated production of interferons as well as a Th1 biased response. DLEC interactions with HIV-1 gp120 and hepatitis B virus soluble antigen may therefore limit the pDC antiviral response. Similar to other C-type lectins, DLEC can mediate antigen uptake

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for MHC loading and presentation to T cells. 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. These functions require the association of DLEC with the ITAM-containing Fc epsilon RI gamma chain.

Predicted N Terminal Ser102 (Fc)

Form Lyophilized from a 0.2 µm filtered solution in PBS.

Bio-activity Measured by its ability to bind fluorescein-conjugated *S. aureus* Bioparticles. Jiang, Y. et al. (2006) J. Biol. Chem. 281:11834. The ED50 for this effect is typically 0.5-2.5 µg/mL.

Molecular Mass Predicted Molecular Mass: 46 kDa
SDS-PAGE: 55-61 kDa, reducing conditions

Endotoxin <0.1 EU per 1 µg of the protein by the LAL method.

Purity >90%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.

Storage Use a manual defrost freezer and avoid repeated freeze-thaw cycles.
12 months from date of receipt, -20 to -70 centigrade as supplied.
1 month, 2 to 8 centigrade under sterile conditions after reconstitution.
3 months, -20 to -70 centigrade under sterile conditions after reconstitution.

Reconstitution Reconstitute at 250 µg/mL in PBS.

GENE INFORMATION

Gene Name CLEC4C C-type lectin domain family 4, member C [*Homo sapiens*]

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Official Symbol	CLEC4C
Synonyms	DLEC; HECL; BDCA2; CD303; CLECSF7; CLECSF11; PRO34150
Gene ID	170482
mRNA Refseq	NM_203503.1
Protein Refseq	NP_987099.1
MIM	606677
UniProt ID	Q8WTT0

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