

DESCRIPTION

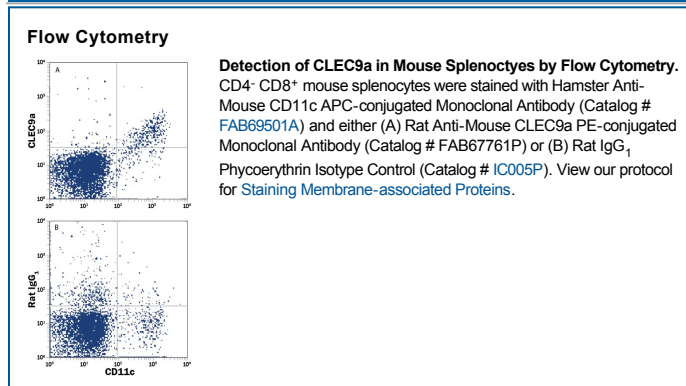
Species Reactivity	Mouse
Specificity	Detects mouse CLEC9a in flow cytometry.
Source	Monoclonal Rat IgG ₁ Clone # 7H11
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	RBL-2H3 rat basophilic leukemia cell line expressing mouse CLEC9a fused to an HA epitope Accession # Q8BRU4
Conjugate	Phycoerythrin Excitation Wavelength: 488 nm Emission Wavelength: 565-605 nm
Formulation	Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *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.

	Recommended Concentration	Sample
Flow Cytometry	10 μ L/10 ⁶ cells	See Below

DATA



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. <ul style="list-style-type: none"> ● 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

CLEC9a (C-type Lectin domain family 9 member A), also known as DNGR-1, is a 44-48 kDa type II transmembrane glycoprotein that belongs to the C-type lectin superfamily. Although the CTLD of CLEC9a structurally resembles that of other C-type lectins, it lacks the conserved residues that typically mediate calcium and carbohydrate binding. CLEC9a is expressed as either a disulfide-linked homodimer or monomer. Human CLEC9a expression is restricted to a subpopulation of BDCA-3⁺ conventional dendritic cells (cDC) and CD16⁻ monocytes. In mouse, the human BDCA-3⁺ cDC are analogous to mouse CD8⁺ cDC which are specialized in antigenic cross-presentation in complex with MHC class I molecules. In addition, mouse CLEC9a is also expressed on plasmacytoid dendritic cells. CLEC9a ligation enhances antigen uptake and processing, leading to presentation on MHC class I molecules and cytotoxic T cell (CTL) priming. In mouse, CLEC9a recognizes normally intracellular determinant(s) of necrotic cells and mediates their uptake by the dendritic cell. The subsequent antigenic cross-presentation to CTL is important for clearing necrotic cellular debris. CLEC9a signaling triggers activation of the tyrosine kinase Syk, indicating that this is an activating receptor. Alternative splicing of mouse CLEC9a generates isoforms with deletions in the transmembrane segment, stalk region, or CTLD. Within aa 57-264 of the ECD, mouse CLEC9a shares 57% and 80% aa sequence identity with human and rat CLEC9a, respectively.