

## Anti-Human CD303 (BDCA-2 )-147Sm

**Catalog #:** 3147009B

**Package Size:** 100 tests

**Storage:** Store product at 4°C. Do not freeze.

**Cross Reactivity:** Human

**Clone:** 201A

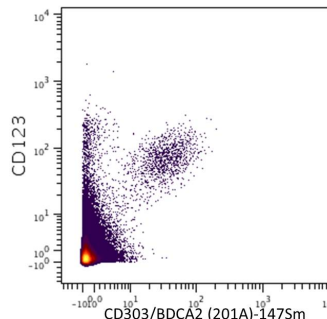
**Isotype:** Mouse IgG2a

**Formulation:** Antibody stabilizer with 0.05% Sodium Azide

### Technical Information

**Validation:** Each lot of conjugated antibody is quality control tested by CyTOF® analysis of stained cells using the appropriate positive and negative cell staining and/or activation controls.

**Recommended Usage:** The suggested use is 1 µl for up to 3 X 10<sup>6</sup> live cells in 100 µl. It is recommended that the antibody be titrated for optimal performance for each of the desired applications.



Human PBMCs stained with 151Eu-anti-CD123 (6H6) and 147Sm-anti-CD303 (201A). Lymphocytes are displayed in the analysis.

### Description

CD303, also known as blood dendritic cell antigen-2 (BDCA-2), is a type II transmembrane glycoprotein that belongs to the C-type lectin superfamily. CD303 is the most specific marker for human pDC and is only expressed in humans. CD303 consists of a single extracellular carbohydrate recognition domain (CRD), a transmembrane region, and a short cytoplasmic domain without an obvious signaling motif. CD303 transmits intracellular signals through an associated transmembrane adaptor, the FcεRγ, which recruits the protein tyrosine kinase Syk, inducing protein tyrosine phosphorylation and calcium mobilization. CD303 signaling inhibits type I IFN secretion, preventing immune surveillance. CD303 is also involved in other pDC functions, such as the inhibition of soluble TNF-related apoptosis-inducing ligand (TRAIL) secretion, which mediates the killing of target cells that express the TRAIL receptor. Although CD303 is a key marker of pDC, the nature and identity of CD303 ligands are presently unknown.

### References

Bandura, D. R., et al. Mass Cytometry: Technique for Real Time Single Cell Multitarget Immunoassay Based on Inductively Coupled Plasma Time-of-Flight Mass Spectrometry. *Analytical Chemistry* 81:6813-6822, 2009.

Ornatsky, O. I., et al. Highly multiparametric analysis by mass cytometry. *J Immunol Methods* 361 (1-2):1-20, 2010.

### Contact Information:

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