

CD172a (SIRP alpha) Monoclonal Antibody (15-414), Super Bright™ 600, eBioscience™

Product Details	
Size	25 Tests
Species Reactivity	Human
Host/Isotype	Mouse / IgG2a, kappa
Recommended Isotype Control	Mouse IgG2a kappa Isotype Control (eBM2a), Super Bright™ 600, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	15-414
Conjugate	Super Bright™ 600
Excitation/Emission Max	414/601 nm
Form	Liquid
Concentration	5 µL/Test
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2, with BSA
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_2734893

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	5 µL (0.5 µg)/test	1 Publication

Product Specific Information

Description: This 15-414 monoclonal antibody reacts with human CD172a, also known as signal regulatory protein alpha (SIRP alpha). This cell surface glycoprotein consists of three Ig-like extracellular domains and two cytoplasmic immunoreceptor tyrosine-based inhibitory motifs (ITIMs). The ITIM domains have been demonstrated to recruit and bind the Src homology 2 domain-containing phosphatases SHP-1 and SHP-2. CD172a is expressed on monocytes, granulocytes, dendritic cells, and CD34+CD38- hematopoietic progenitor cells but not on T and B lymphocytes. Moreover, neurons have also been shown to express CD172. The integrin-associated protein CD47 is the extracellular ligand for CD172a. Studies show that CD172a is involved in dendritic cell-mediated T cell activation, neutrophil migration, and phagocytosis.

Applications Reported: This 15-414 antibody has been reported for use in flow cytometric analysis.

Applications Tested: This 15-414 antibody has been pre-titrated and tested by flow cytometric analysis of human peripheral blood cells. This can be used at 5 µL (0.5 µg) per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10⁵ to 10⁸ cells/test.

Super Bright 600 is a tandem dye that can be excited with the violet laser line (405 nm) and emits at 600 nm. We recommend using a 610/20 bandpass filter. Please make sure that your instrument is capable of detecting this fluorochrome.

When using two or more Super Bright dye-conjugated antibodies in a staining panel, it is recommended to use Super Bright Complete Staining Buffer (Product # SB-4401) to minimize any non-specific polymer interactions. Please refer to the datasheet for Super Bright Staining Buffer for more information.

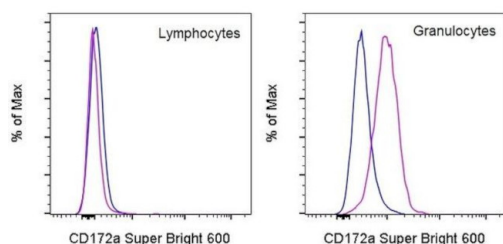
Light sensitivity: This tandem dye is sensitive to photo-induced oxidation. Please protect this vial and stained samples from light.

Fixation: Samples can be stored in IC Fixation Buffer (Product # 00-8222) (100 μ L of cell sample + 100 μ L of IC Fixation Buffer) or 1-step Fix/Lyse Solution (Product # 00-5333) for up to 3 days in the dark at 4°C with minimal impact on brightness and FRET efficiency/compensation. Some generalizations regarding fluorophore performance after fixation can be made, but clone specific performance should be determined empirically.

Excitation: 405 nm; Emission: 600 nm; Laser: Violet Laser

Super Bright Polymer Dyes are sold under license from Becton, Dickinson and Company.

Product Images For CD172a (SIRP alpha) Monoclonal Antibody (15-414), Super Bright™ 600, eBioscience™



CD172a (SIRP alpha) Antibody (63-1729-41) in Flow

Normal human peripheral blood cells were stained with Mouse IgG2a Isotype Control, Super Bright 600 (Product # 63-4724-82) (blue histogram) or CD172a (SIRP alpha) Monoclonal Antibody, Super Bright 600 (purple histogram). Cells in the lymphocyte (left) or granulocyte (right) gate were used for analysis.

1 Reference

Flow Cytometry (1)

EBioMedicine

SIRP maintains macrophage homeostasis by interacting with PTK2B kinase in *Mycobacterium tuberculosis* infection and through autophagy and necroptosis.

"Published figure using CD172a (SIRP alpha) monoclonal antibody (Product # 63-1729-42) in Flow Cytometry"

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Year
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