

Anti-Mouse CD172a (SIRP alpha) PerCP-eFluor® 710

Catalog Number: 46-1721

Also known as: SHPS-1, Signal-regulatory protein alpha-1 RUO: For Research Use Only. Not for use in diagnostic procedures.



Description

This P84 monoclonal antibody reacts with mouse CD172a, also known as signal regulatory protein a (SIRPa). This cell surface glycoprotein consists of three Ig-like extracellular domains and two cytoplasmic immunoreceptor tyrosinebased 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, macrophages, dendritic cells, but not on T and B lymphocytes. Moreover, neurons and other tissues of the central nervous system have also been shown to express CD172a. 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.

This monoclonal antibody has been reported to have neutralizing activity.

Applications Reported

This P84 antibody has been reported for use in flow cytometric analysis.

Applications Tested

This P84 antibody has been tested by flow cytometric analysis of mouse bone marrow cells. This can be used at less than or equal to $0.5 \ \mu g$ per test. A test is defined as the amount (μg) of antibody that will stain a cell sample in a final volume of 100 μ L. Cell number should be determined empirically but can range from 10⁵ to 10⁸ cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

PerCP-eFluor® 710 can be used in place of PE-Cy5, PE-Cy5.5 or PerCP-Cy5.5. PerCP-eFluor® 710 emits at 710 nm and is excited with the blue laser (488 nm). Please make sure that your instrument is capable of detecting this fluorochrome. For a filter configuration, we recommend using the 685 LP dichroic mirror and 710/40 band pass filter, however the 695/40 band pass filter is an acceptable alternative.

Our testing indicates that PerCP-eFluor® 710 conjugated antibodies are stable when stained samples are exposed to freshly prepared 2% formaldehyde overnight at 4°C, but please evaluate for alternative fixation protocols.



Page 2 of 2

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Click here or contact eBioscience Technical Support for more information on eFluor™ Organic Dyes including PerCPeFluor® 710.

References

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Liu K, Victora GD, Schwickert TA, Guermonprez P, Meredith MM, Yao K, Chu FF, Randolph GJ, Rudensky AY, Nussenzweig M. In vivo analysis of dendritic cell development and homeostasis. Science. 2009 Apr 17;324(5925):392-7. (**P84**, FC)

Fukunaga A, Nagai H, Noguchi T, Okazawa H, Matozaki T, Yu X, Lagenaur CF, Honma N, Ichihashi M, Kasuga M, Nishigori C, Horikawa T. Src homology 2 domain-containing protein tyrosine phosphatase substrate 1 regulates the migration of Langerhans cells from the epidermis to draining lymph nodes. J Immunol. 2004 Apr 1;172(7):4091-9. (**P84**, FC, FA (neutralizing))

Chuang W, Lagenaur CF. Central nervous system antigen P84 can serve as a substrate for neurite outgrowth. Dev Biol. 1990 Feb;137(2):219-32.

Related Products

12-0112 Anti-Mouse CD11b PE (M1/70) 46-4301 Rat IgG1 K Isotype Control PerCP-eFluor® 710