Anti-Mouse CD172a (SIRP alpha) Functional Grade Purified

Catalog Number: 16-1721
Also known as: SHPS-1, Signal-regulatory protein alpha-1
RUO: For Research Use Only. Not for use in diagnostic procedures.

Product Information

Contents: Anti-Mouse CD172a (SIRP alpha) Functional Grade Purified
REF **Catalog Number:** 16-1721
Clone: P84
Concentration: 1 mg/mL
Host/Isotype: Rat IgG1, kappa
Endotoxin: Less than 0.001 ng/ug antibody, as determined by the LAL assay.

Formulation: aqueous buffer, no sodium azide
Temperature Limitation: Store at 2-8°C.
LOT **Batch Code:** Refer to vial
Use By: Refer to vial

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 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, 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 and neutralization assays.

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 0.25 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 10^5 to 10^8 cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

References

Barclay AN. Signal regulatory protein alpha (SIRPalpha)/CD47 interaction and function. Curr Opin Immunol. 2009 Feb;21(1):1-2. Review.

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

16-4301 Rat IgG1 K Isotype Control Functional Grade Purified

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