

**PE/Cy7 anti-mouse CD172a (SIRP $\alpha$ )**

**Catalog # / Size:** 1320040 / 100  $\mu$ g  
1320035 / 25  $\mu$ g

**Clone:** P84

**Isotype:** Rat IgG1,  $\kappa$

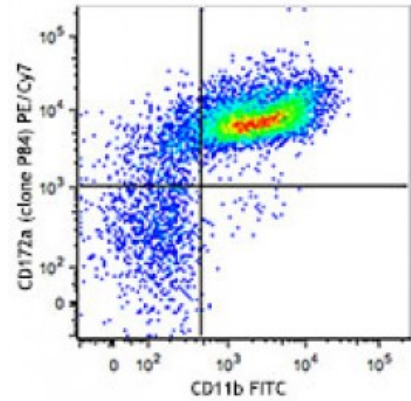
**Immunogen:** Mouse brain membrane protein

**Reactivity:** Mouse

**Preparation:** The antibody was purified by affinity chromatography and conjugated with PE/Cy7 under optimal conditions. The solution is free of unconjugated PE/Cy7 and unconjugated antibody.

**Formulation:** Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.

**Concentration:** 0.2



C57BL/6 mouse bone marrow cells were stained with CD11b FITC and CD172a (clone P84) PE/Cy7 (top) or rat IgG1,  $\kappa$  PE/Cy7 isotype control (bottom). Data shown was gated on myeloid cell population.

**Applications:**

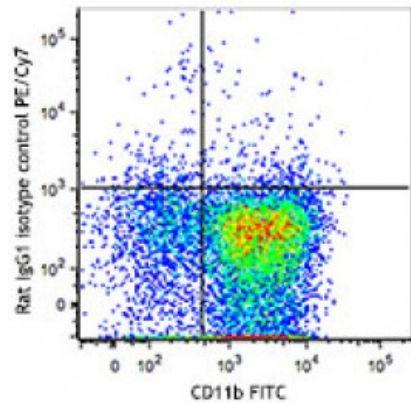
**Applications:** Flow Cytometry

**Recommended Usage:** Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is  $\leq 0.25$  microg per million cells in 100 microL volume. It is recommended that the reagent be titrated for optimal performance for each application.

**Application Notes:** Additional reported applications (for the relevant formats) include: blocking SIRP $\alpha$  interaction with CD474, *in vivo* blocking of dendritic cell migration<sup>3</sup>, enhancing of macrophage phagocytosis<sup>2,4</sup>, immunohistochemical staining of cerebellum frozen sections<sup>1</sup>, and immunoprecipitation<sup>2,4</sup>.

**Application References:**

1. Comu S, *et al.* 1997. *J. Neurosci.* 17:8702. (IHC)
2. Gresham HD, *et al.* 2000. *J. Exp. Med.* 191:515. (IP)
3. Fukunaga A, *et al.* 2004. *J. Immunol.* 172:4091. (Block)
4. Oldenborg PA, *et al.* 2000. *Science* 288:2051. (Block, IP)



**Description:** CD172a, also known as SIRP $\alpha$ , is a type I transmembrane protein with one V-set Ig-like and two C-set Ig-like domains in the extracellular portion, and two ITIM motifs and a proline-rich region in the cytoplasmic tail. CD172a is expressed by monocytes, macrophages, myeloid cells, and neuronal tissue. The phosphorylation of SIRP $\alpha$  ITIMs induces the recruitment and activation of the

tyrosine phosphatases PTPN6 and PTPN11, resulting in the negative regulation of several biological processes. The ligands of CD172a are CD47, SP-A, and SP-D.

**Antigen  
References:**

1. Zhao XW, *et al.* 2011. *P. Natl. Acad. Sci. USA* 108:18342.
2. Verjan-Garcia N, *et al.* 2011. *J. Immunol.* 187:2268.
3. Sato-Hashimoto M, *et al.* 2011. *J. Immunol.* 187:291.
4. Raymond M,