PerCP/Fire™ 806 anti-mouse CD172a (SIRPα) Antibody

Catalog# / Size	144047 / 25 µg 144048 / 100 µg
Clone	P84
Regulatory Status	RUO
Other Names	SHPS-1, BIT, P84, PTPNS1, CD172 antigen-like family member A
Isotype	Rat IgG1, κ
Description	CD172a, also known as SIRPα, 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 SIRPα 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.

Product Details

Verified Reactivity	Mouse
Antibody Type	Monoclonal
Host Species	Rat
Immunogen	Mouse brain membrane protein
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide
Preparation	The antibody was purified by affinity chromatography and conjugated with PerCP/Fire™ 806 under optimal conditions.
Concentration	0.2 mg/mL
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. **Do not freeze**.
Application	FC - Quality tested
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 ≤ 0.25 µg per million cells in 100 µL volume. It is recommended that the reagent be titrated for optimal performance for each application. * PerCP/Fire™ 806 has a maximum excitation of 478 nm and a maximum emission of 806 nm.
Excitation Laser	Blue Laser (488 nm)
Application Notes	Additional reported applications (for the relevant formats) include: blocking SIRPa interaction with CD47[4], *in vivo* blocking of dendritic cell migration[3], enhancing of macrophage phagocytosis[2,4], immunohistochemical staining of cerebellum frozen sections[1], immunoprecipitation[2,4], and spatial biology (IBEX)[5,6].
Application References **(PubMed link indicates BioLegend citation)**	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) 5. Radtke AJ, *et al.* 2020. *Proc Natl Acad Sci U S A.* 117:33455-65. (SB) PubMed 6. Radtke AJ, *et al.* 2022. *Nat Protoc.* 17:378-401. (SB) PubMed
RRID	AB_3674993 (BioLegend Cat. No. 144047)

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Antigen Details

Structure	Type I transmembrane protein
Distribution	Monocytes, macrophages, myeloid cells, neuronal tissue
Function	Negative regulation of several biological processes
Interaction	PTPN6, PTPN11
Ligand/Receptor	CD47, SP-A, SP-D
Cell Type	Dendritic cells, Macrophages, Monocytes, Neutrophils
Biology Area	Cell Adhesion, Cell Biology, Immunology, Signal Transduction
Molecular Family	Adhesion Molecules, CD Molecules, Protein Kinases/Phosphatase
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, *et al.* 2010. *Eur. J. Immunol.* 40:3510.
Gene ID	19261

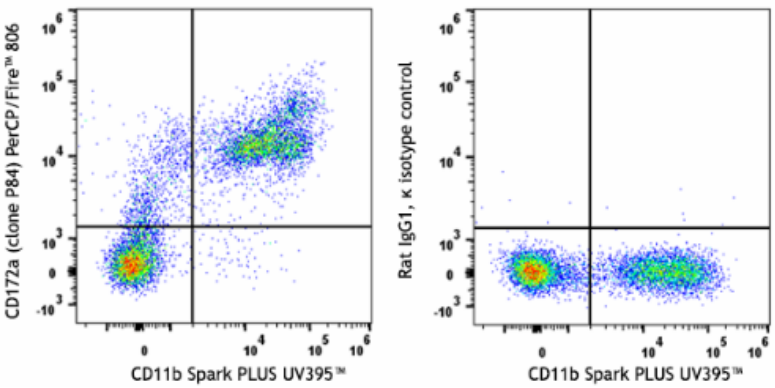
Related Protocols

- Cell Surface Flow Cytometry Staining Protocol

Other Formats

Purified anti-mouse CD172a (SIRPα), FITC anti-mouse CD172a (SIRPα), PE/Cyanine7 anti-mouse CD172a (SIRPα), PerCP/Cyanine5.5 anti-mouse CD172a (SIRPα), PE anti-mouse CD172a (SIRPα), APC anti-mouse CD172a (SIRPα), PE/Dazzle™ 594 anti-mouse CD172a (SIRPα), Alexa Fluor® 594 anti-mouse CD172a (SIRPα), APC/Cyanine7 anti-mouse CD172a (SIRPα), Alexa Fluor® 488 anti-mouse CD172a (SIRPα), Alexa Fluor® 700 anti-mouse CD172a (SIRPα), Biotin anti-mouse CD172a (SIRPα), Alexa Fluor® 647 anti-mouse CD172a (SIRPα), APC/Fire™ 750 anti-mouse CD172a (SIRPα), TotalSeq™-A0422 anti-mouse CD172a (SIRPα), Brilliant Violet 510™ anti-mouse CD172a (SIRPα), TotalSeq™-C0422 anti-mouse CD172a (SIRPα), Ultra-LEAF™ Purified anti-mouse CD172a (SIRPα), TotalSeq™-B0422 anti-mouse CD172a (SIRPα), PerCP/Fire™ 780 anti-mouse CD172a (SIRPα), Spark Red™ 718 anti-mouse CD172a (SIRPα) (Flexi-Fluor™), PerCP/Fire™ 806 anti-mouse CD172a (SIRPα) Antibody

Product Data



C57BL/6 bone marrow cells were stained with anti-mouse CD11b (clone M1/70) Spark PLUS UV395™ and anti-mouse CD172a (SIRPα) (clone P84) PerCP/Fire™ 806 (left) or rat IgG1, κ PerCP/Fire™ 806 isotype control (right).

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