

PE anti-P2RY12 Antibody

Catalog# / Size	848003 / 25 µg 848004 / 100 µg
Clone	S16007D
Regulatory Status	RUO
Other Names	P2Y12, ADPG-R, BDPLT8, HORK3, P2T(AC), P2Y(12)R, P2Y(AC), P2Y(ADP), P2Y(cyc), P2Y12P2Y12 platelet ADP receptor, purinergic receptor P2RY12, purinergic receptor P2Y, G-protein coupled, 12
Isotype	Rat IgG2b, κ
Description	Purinergic Receptor P2Y (P2RY12) is a receptor for ADP and ATP coupled to G-proteins that inhibit the adenylyl cyclase second messenger system. P2RY12 is not activated by UDP and UTP. Required for normal platelet aggregation and blood coagulation. P2RY12 is a highly selective marker for microglia that specifically distinguishes these cells from other myeloid cells.

Product Details

Verified Reactivity	Mouse
Antibody Type	Monoclonal
Host Species	Rat
Immunogen	Mouse P2RY12.
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Preparation	The antibody was purified by affinity chromatography and conjugated with PE 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.
Excitation Laser	Blue Laser (488 nm) Green Laser (532 nm)/Yellow-Green Laser (561 nm)
Application Notes	View the video of our collaborator discussing the importance of highly specific monoclonal antibodies for P2RY12 in Microglia research. Learn more about the validation testing we performed on clone S16007D by watching our Scientific Poster Video .
Additional Product Notes	View more applications data for this product in our Scientific Poster Library .
Product Citations	<ol style="list-style-type: none">1. Mason HD, <i>et al.</i> 2021. JCI Insight. 6:e149229. PubMed2. Burns JC, <i>et al.</i> 2021. Bio Protoc. 11:e4091. PubMed3. Honarpisheh P, <i>et al.</i> 2020. J Neuroinflammation. 0.9625. PubMed4. Burns JC, <i>et al.</i> 2020. eLife. 9:00. PubMed5. Chitu V, <i>et al.</i> 2020. Cell Reports. 30(9):3004-3019. PubMed6. Milich LM, <i>et al.</i> 2021. J Exp Med. 218:. PubMed7. Liu Y, <i>et al.</i> 2020. Cell. 183(6):1665-1681.e18. PubMed8. Yeini E, <i>et al.</i> 2021. Nat Commun. 12:1912. PubMed

RRID AB_2721644 (BioLegend Cat. No. 848003)
AB_2721645 (BioLegend Cat. No. 848004)

Antigen Details

Structure	P2RY12 is a 347 amino acid protein with a molecular mass of 39.8 kD.
Distribution	Tissue distribution: platelets, brain (microglia), lung, appendix, pituitary and adrenal glands. Cellular distribution: cell membrane and cytosol.
Function	G-protein coupled receptor that inhibits the adenylyl cyclase second messenger system.
Ligand/Receptor	ADP and ATP.
Cell Type	Microglia, Platelets
Biology Area	Cell Biology, Immunology, Innate Immunity, Neuroscience, Neuroscience Cell Markers
Molecular Family	GPCR, Purinergic Receptors
Antigen References	1. Orr AG, <i>et al.</i> 2009. <i>Nat. Neurosci.</i> 12(7):872-8.
Gene ID	70839

Related Protocols

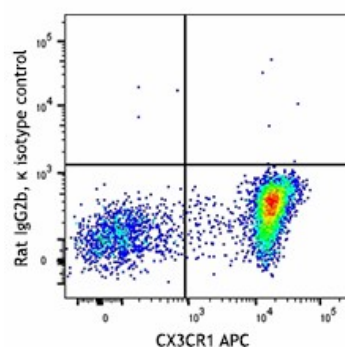
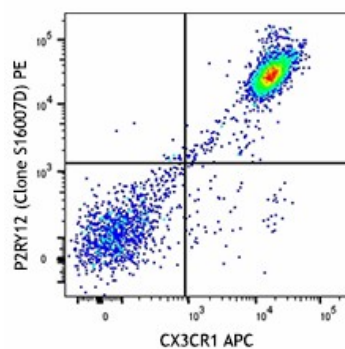
[Whole Mouse Brain Processing for Microglia Isolation, Cell Separation, and Flow Cytometry](#)

[Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

Purified anti-P2RY12, PE anti-P2RY12, APC anti-P2RY12, Biotin anti-P2RY12, TotalSeq™-A0415 anti-P2RY12, Spark YG™ 570 anti-P2RY12 Antibody, APC/Fire™ 810 anti-P2RY12, Alexa Fluor® 488 anti-P2RY12

Product Data



Brain from a C57BL/6 mouse was digested with collagenase and microglial cells were enriched with a percoll gradient and then stained with CX3CR1 APC and P2RY12 (clone S16007D) PE (top) or rat IgG2b, κ PE isotype control (bottom).

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BioLegend Inc., 8999 BioLegend Way, San Diego, CA 92121 www.biolegend.com
Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587