

PE anti-mouse CD234 (ACKR1) Antibody

Catalog# / Size	169003 / 25 µg 169004 / 100 µg
Clone	W22145A
Regulatory Status	RUO
Other Names	Atypical chemokine receptor 1 (ACKR1), Duffy antigen/chemokine receptor(DARC), FY, Glycoprotein D (GPD)
Isotype	Rat IgG2c, κ
Description	Atypical chemokine receptor 1 (ACKR1) controls chemokine levels and localization via high-affinity chemokine binding. This chemokine binding doesn't trigger the classical ligand-driven signal transduction cascades and instead results in chemokine sequestration, degradation, or transcytosis. Ackr1 interacts with inflammatory chemokines of both the CXC and the CC subfamilies but not with homeostatic chemokines. It acts as a receptor for chemokines including CCL2, CCL5, CCL7, CCL11, CCL13, CCL14, CCL17, CXCL5, CXCL6, IL8/CXCL8, CXCL11, GRO, RANTES, MCP-1 and TARC. It regulates chemokine bioavailability and, consequently, leukocyte recruitment through two distinct mechanisms: when expressed in endothelial cells, it sustains the abluminal to luminal transcytosis of tissue-derived chemokines and their subsequent presentation to circulating leukocytes; when expressed in erythrocytes, serves as blood reservoir of cognate chemokines but also as a chemokine sink, buffering potential surges in plasma chemokine levels. Ackr1 acts as a receptor for the malaria parasite <i>Plasmodium yoelii</i> in mature erythrocytes. N-terminal glycosylated extracellular domain of ACKR1 carries the Duffy blood group antigens Fya and Fyb.

Product Details

Verified Reactivity	Mouse
Antibody Type	Monoclonal
Host Species	Rat
Immunogen	Mouse full length ACKR1 transfected cells.
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 ≤ 0.5 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)

Antigen Details

Structure	Membrane protein of the G-protein coupled receptor 1 family with seven transmembrane domains and four cytoplasmic domains.
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Distribution	Expressed mainly on erythrocytes and endothelial cells.
Function	ACKR1 controls chemokine levels, localization, bioavailability and thereby leukocyte recruitment. Acts as a receptor for the malaria parasite <i>Plasmodium yoelii</i> in mature erythrocytes.
Interaction	Acts as a receptor for chemokines including CCL2, CCL5, CCL7, CCL11, CCL13, CCL14, CCL17, CXCL5, CXCL6, IL8/CXCL8, CXCL11, GRO, RANTES, MCP-1 and TARC.
Ligand/Receptor	Binds to CXC and CC chemokines subfamilies.
Antigen References	1. Lou H, <i>et al.</i> 1997. <i>Genome Res.</i> 7:932-41. 2. Tang T, <i>et al.</i> 1998. <i>DNA Seq.</i> 9:129-143. 3. Lou H, <i>et al.</i> 2000. <i>Mol Cell Biol.</i> 20:3097-101. 4. Dawson TC, <i>et al.</i> 2000. <i>Blood.</i> 96:1681-4. 5. Du J, <i>et al.</i> 2002. <i>J Leukoc Biol.</i> 71:141-53. 6. Swardson-Oliver CJ, <i>et al.</i> 2002. <i>Blood.</i> 99: 2677-84. 7. Lee JS, <i>et al.</i> 2003. <i>J Immunol.</i> 170:5244-51. 8. Fukuma N, <i>et al.</i> 2003. <i>Biochem Biophys Res Commun.</i> 303: 137-9.
Gene ID	13349

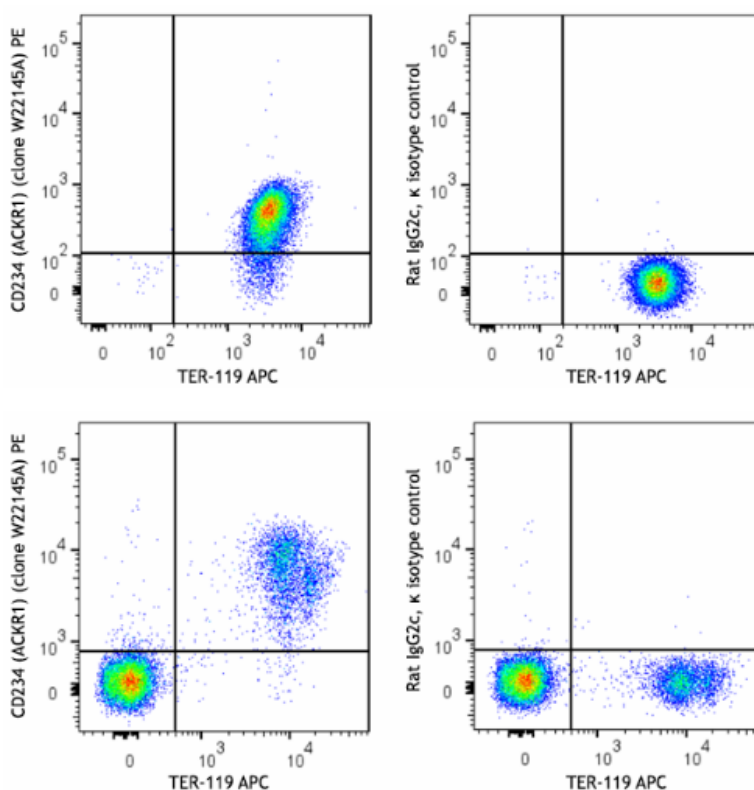
Related Protocols

- [Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

PE anti-mouse CD234 (ACKR1), Purified anti-mouse CD234 (ACKR1)

Product Data



C57BL/6 mouse erythrocytes were stained with anti-mouse TER-119/Erythroid Cells (clone TER-119) APC and anti-mouse CD234 (ACKR1) (clone W22145A) PE (left) or rat IgG2c, κ PE isotype control (right).

C57BL/6 mouse bone marrow cells were stained with anti-mouse TER-119/Erythroid Cells (clone TER-119) APC and anti-mouse CD234 (ACKR1) (clone W22145A) PE (left) or rat IgG2c, κ PE isotype control (right).

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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