Human CXCR7/RDC-1 APC-conjugated Antibody

Monoclonal Mouse IgG_{2A} Clone # 358426

Catalog Number: FAB42271A

100 TESTS, 25 TESTS

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human CXCR7/RDC−1 in direct ELISAs. In flow cytometry, reacts specifically with five distinct human CXCR7 transfectants, but does not react with their respective parental lines or mouse CXCR7 transfectants. In flow cytometry, also reacts with monocytes expressing CXCR7, but does not react with MCF-7 cells which have been reported to have surface-expressing CXCR7 using clone 11G8. Due to the conflicting reports published, use of clone 358426 may result in an underestimation of CXCR7 expression on certain cell types.
Source	Monoclonal Mouse IgG_{2A} Clone # 358426
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	NS0 mouse myeloma cell line transfected with human CXCR7/RDC−1 Met1-Lys362 (Gly131Ser) Accession # AAA62370
Conjugate	Allophycocyanin Excitation Wavelength: 620-650 nm Emission Wavelength: 660-670 nm
Formulation	Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

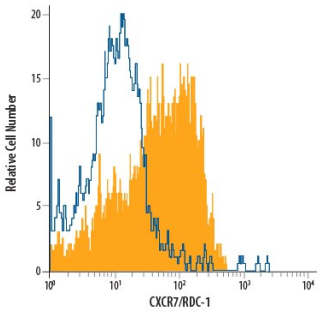
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Flow Cytometry	10 µL/10^6 cells	See Below

DATA

Flow Cytometry



Detection of CXCR7/RDC-1 in Human Blood Monocytes by Flow Cytometry. Human peripheral blood monocytes were stained with Mouse Anti-Human CXCR7/RDC-1 APC-conjugated Monoclonal Antibody (Catalog # FAB42271A, filled histogram) or isotype control antibody (Catalog # IC003A, open histogram). View our protocol for Staining Membrane-associated Proteins.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Protect from light. Do not freeze.** ● 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

The G protein-coupled receptor, RDC1, belongs to a subgroup of chemokine receptors and has been designated CXCR7. CXCR7 can bind with high-affinity to CXCL12/SDF-1 and CXCL11/I-TAC. It is also a co-receptor for several HIV and SIV strains. In their N-termini and extracellular loops 1, 2, and 3, human and mouse CXCR7 share 84%, 100%, 96% and 86% amino acid sequence identity, respectively. Reports of mRNA levels and/or protein expression (as assessed using anti−CXCR7, clone 9C4) (1, 2) indicate that CXCR7 occurs on a wide variety of tissues and cells including monocytes, B cells, T cells and mature dendritic cells. In contrast, based on ligand binding analysis and receptor level (as assessed using anti−CXCR7, clone 11G8), surface expression of CXCR7 was reported to be restricted to tumor cells, activated endothelial cells, fetal liver cells, and few other cell types (3). The basis of these inconsistent observations is not known but may be attributed to cell context and the use of different antibodies that may recognize different epitopes.

References:

1. Balabanian, K. *et al.* (2005) J. Biol. Chem. **280**:35760.
2. Infantino, S. *et al.* (2006) J. Immunol. **176**:2197.
3. Burns, J.M. *et al.* (2006) J. Exp. Med. **203**:2201.

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