

DESCRIPTION

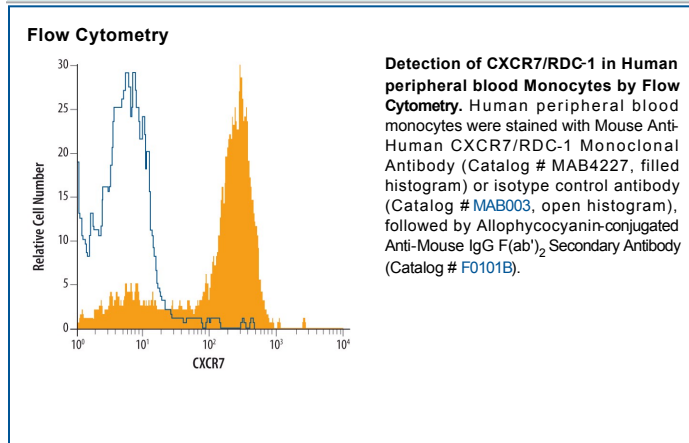
Species Reactivity	Human
Specificity	Detects human CXCR7/RDC-1 in direct ELISAs. In flow cytometry, reacts specifically with five distinct human CXCR7 transfectants, but does not react with their respective parental lines or mouse CXCR7 transfectants. In flow cytometry, also reacts with monocytes expressing 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 monoclonal MAB4227 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
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

APPLICATIONS

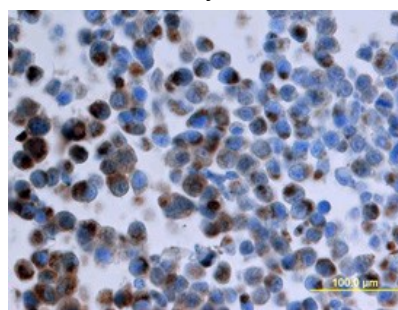
Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Flow Cytometry	2.5 µg/10 ⁶ cells	See Below
Immunohistochemistry	8-25 µg/mL	See Below

DATA



Immunohistochemistry



CXCR7/RDC-1 in Human Breast Cancer Tissue. CXCR7/RDC-1 was detected in perfusion fixed paraffin-embedded sections of nude mice injected with human breast cancer cells using Mouse Anti-Human CXCR7/RDC-1 Monoclonal Antibody (Catalog # MAB4227) at 25 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Mouse HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS002) and counterstained with hematoxylin (blue). View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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.