

Technical Data Sheet

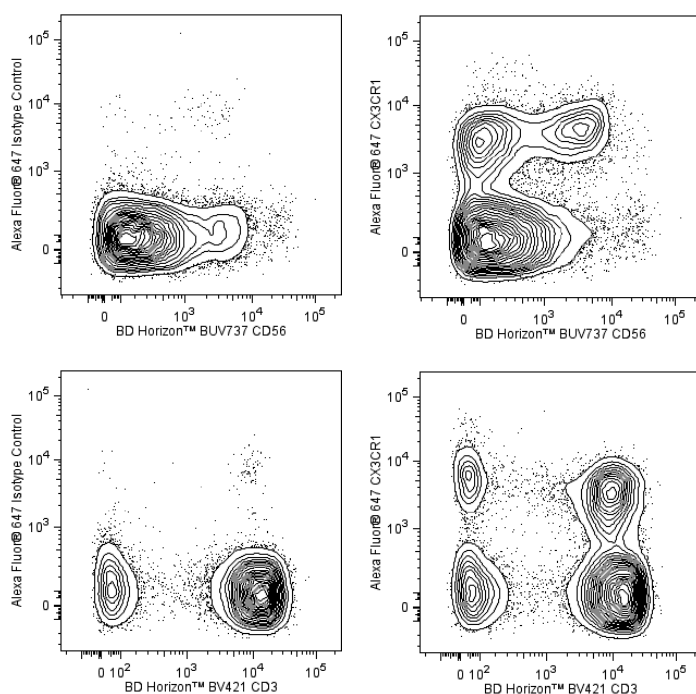
Alexa Fluor® 647 Rat Anti-Human CX3CR1

Product Information

Material Number:	565894
Alternate Name:	CCRL1; CMKBRL1; CMKDR1; GPR13; GPRV28; V28; Fractalkine Receptor
Size:	25 Tests
Vol. per Test:	5 µl
Clone:	2A9-1
Immunogen:	Human CX3CR1 Recombinant Protein
Isotype:	Rat IgG2b, κ
Reactivity:	QC Testing: Human
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The 2A9-1 monoclonal antibody specifically binds to human CX3CR1, which is also known as chemokine (C-C) receptor-like 1 (CCRL1), Beta chemokine receptor-like 1 (CMK-BRL-1), G protein-coupled receptor 13 (GPR13), or GPRV28 (V28). CX3CR1 is a seven transmembrane G protein coupled receptor that is expressed by NK cells, T cells, and monocytes. The cellular expression of CX3CR1 is correlated with high levels of intracellular perforin and granzyme B. CX3CR1 serves as a receptor for fractalkine (CX3CL1). Fractalkine is a transmembrane chemokine of the CX3C family that is expressed on activated endothelial cells, neurons, and astrocytes. Interaction of CX3CR1 with fractalkine initiates cellular adhesive and chemotactic responses.



Multicolor flow cytometric analysis of CX3CR1 expression on human peripheral blood lymphocytes. Whole blood was treated with BD Pharm Lyse™ Lysing Buffer (Cat. No. 555899) to lyse erythrocytes. After washing, the leucocytes were stained with BD Horizon™ BUV737 Mouse Anti-Human CD56 antibody (Cat. No. 564447; Top Plots), BD Horizon™ BV421 Mouse Anti-Human CD3 antibody (Cat. No. 562426/562427; Bottom Plots), and either Alexa Fluor® 647 Rat IgG2b, κ Isotype Control (Cat. No. 557691; Left Plots) or Alexa Fluor® 647 Rat Anti-Human CX3CR1 antibody (Cat. No. 565894/565895; Right Plots). Two-color flow cytometric contour plots showing the correlated expression of CD56 or CD3 versus CX3CR1 (or Ig Isotype control staining), were derived from gated events with the forward and side light-scatter characteristics of viable lymphocytes. Flow cytometric analysis was performed using a BD LSRFortessa™ Flow Cytometer System.

Preparation and Storage

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

The antibody was conjugated to Alexa Fluor® 647 under optimum conditions, and unreacted Alexa Fluor® 647 was removed.

Application Notes

Application

Flow cytometry	Routinely Tested
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Suggested Companion Products

<u>Catalog Number</u>	<u>Name</u>	<u>Size</u>	<u>Clone</u>
554656	Stain Buffer (FBS)	500 mL	(none)
554657	Stain Buffer (BSA)	500 mL	(none)
557691	Alexa Fluor® 647 Rat IgG2b, κ Isotype Control	0.1 mg	A95-1
565895	Alexa Fluor® 647 Rat Anti-Human CX3CR1	100 Tests	2A9-1
555899	Lysing Buffer	100 mL	(none)
349202	BD FACS™ Lysing Solution	100 mL	(none)
564447	BUV737 Mouse Anti-Human CD56	100 Tests	NCAM16.2
562427	BV421 Mouse Anti-Human CD3	25 Tests	UCHT1
562426	BV421 Mouse Anti-Human CD3	100 Tests	UCHT1

Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1×10^6 cells in a 100- μ l experimental sample (a test).
2. An isotype control should be used at the same concentration as the antibody of interest.
3. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
4. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
5. The Alexa Fluor®, Pacific Blue™, and Cascade Blue® dye antibody conjugates in this product are sold under license from Molecular Probes, Inc. for research use only, excluding use in combination with microarrays, or as analyte specific reagents. The Alexa Fluor® dyes (except for Alexa Fluor® 430), Pacific Blue™ dye, and Cascade Blue® dye are covered by pending and issued patents.
6. Alexa Fluor® is a registered trademark of Molecular Probes, Inc., Eugene, OR.
7. Alexa Fluor® 647 fluorochrome emission is collected at the same instrument settings as for allophycocyanin (APC).
8. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
9. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

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- Siwetz M, Sundl M, Kolb D, et al. Placental fractalkine mediates adhesion of THP-1 monocytes to villous trophoblast. *Histochem Cell Biol.* 2015; 143(6):565-74. (Biology)