BioLegend
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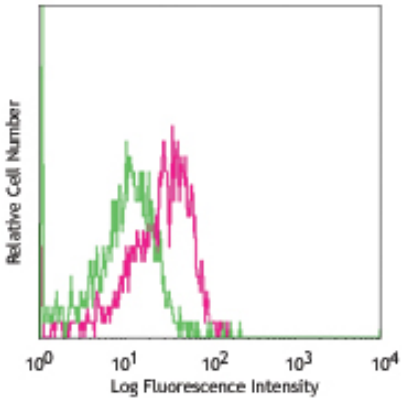
Product Data Sheet

Alexa Fluor® 647 anti-human CD192 (CCR2)

Catalog # / Size: 335301 / 25 tests
Clone: TG5/CCR2
Isotype: Mouse IgG2b, κ
Immunogen: CCR2 transfectants
Reactivity: Human
Preparation: The antibody was purified by affinity chromatography, and conjugated with Alexa Fluor® 647 under optimal conditions. The solution is free of unconjugated Alexa Fluor® 647.
Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA).
Storage: The antibody solution should be stored undiluted at 4°C and protected from prolonged exposure to light. **Do not freeze.**



Human peripheral blood monocytes stained with TG5/CCR2 Alexa Fluor® 647

Applications:

Applications: FC - *Quality tested*
Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For immunofluorescent staining, the suggested use of this reagent is 5 µl per million cells or 5 µl per 100 µl of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

* Alexa Fluor® 647 has a maximum emission of 668 nm when it is excited at 633nm / 635nm.
** Alexa Fluor® is a registered trademark of Molecular Probes, Inc. Alexa Fluor® dye antibody conjugates are sold under license from Molecular Probes, Inc. for research use only, except for use in combination with microarrays and high content screening, and are covered by pending and issued patents.

Application Notes: 1. Schwartz, EA., *et al.* 2010 *Arterioscler Thromb Vasc Biol.* 30:802. PubMed
2. Lesokhin AM, *et al.* 2012. *Cancer Res.* 72:876. PubMed.

Description: CCR2 is a chemokine receptor that binds monocyte chemoattractant proteins (MCP-1, 2, 3 and 4). Two spliced variants were initially described for CCR2 (CCR2A and CCR2B). These variants differ in their terminal carboxyl tails (1). Monocyte adhesion to the arterial endothelium and subsequent migration into the intima are central events in the pathogenesis of atherosclerosis. CCR2 and MCP-1 has been associated to atherosclerotic plaques (2, 3). MCP-1 is induced by modified-LDL in endothelial cells, and may trigger firm adhesion of monocytes to vascular endothelium under flow. Local overexpression of MCP-1 at vessel wall induces infiltration of macrophages and formation of atherosclerotic lesion (4). Absence of MCP-1 reduces the lesion size in MCP-1−/− apoE−/− mice in the apoE gene deleted mouse atherosclerosis model (5, 6).Obesity induces an inflammation state that is implicated in many clinically important complications, including insulin resistance, diabetes, atherosclerosis and non-alcoholic fatty liver disease. CCR2 influences the development of obesity and associated adipose tissue inflammation (7).

Antigen References:
1. Wong LM, *et al. J. Biol. Chem.* 272:1038-1045 1997.
2. Papadopoulou C, *et al. Cytokine* 43:181–186 2008.
3. Barlic J, *et al. J. Leukoc. Biol.* 82:226-236 2007.
4. Namiki M, *et al. Thromb Vasc Biol* 22:115–120 2002.
5. Gu L, *et al. Mol Cell* 2:275–281 1998.
6. Coll B, *et al. Clin Chim Acta* 383:21-29 2007.
7. Ferrante AW Jr, *et al. J Inter Med* 262:408-414 2007.

Related Products:

Product	Clone	Application
Alexa Fluor® 647 Mouse IgG2b, κ Isotype Ctrl	MPC-11	FC, ICFC
Cell Staining Buffer		FC, ICC, ICFC
RBC Lysis Buffer (10X)		FC, ICFC
Human TruStain FcX™ (Fc Receptor Blocking Solution)		FC, ICC, ICFC

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