

APC/Fire™ 750 anti-human CD192 (CCR2)

Catalog # / Size: 2386140 / 100 tests
2386135 / 25 tests

Clone: K036C2

Isotype: Mouse IgG2a, κ

Immunogen: CCR2 DNA immunogen

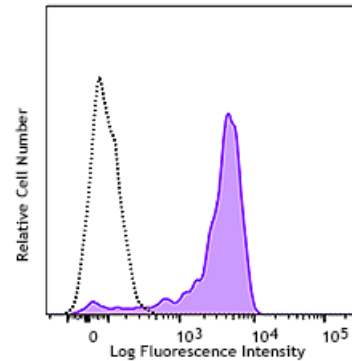
Reactivity: Human

Preparation: The antibody was purified by affinity chromatography and conjugated with APC/Fire™ 750 under optimal conditions.

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA).

Workshop Number: III 155

Concentration: Lot-specific



Human peripheral blood monocytes were stained with CD192 (CCR2, clone K036C2) APC/Fire™ 750 (filled histogram) or Mouse IgG2a, κ APC/Fire™ 750 isotype control (open histogram).

Applications:

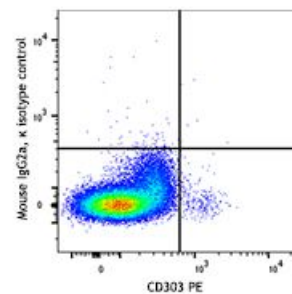
Applications: Flow Cytometry

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 5 µl per million cells in 100 µl staining volume or 5 µl per 100 µl of whole blood.

* APC/Fire™ 750 has a maximum excitation of 650 nm and a maximum emission of 787 nm.

Application Notes: The epitope recognized by MI15 is found within the ectodomain of the CD138 core protein. It has been reported that MI15 blocks the binding of clone B-B4 but not clone DL-101 by flow cytometric analysis. Clones DL-101 and MI15 exhibit differential staining patterns on *in vitro* generated plasma cells and some CD138⁺ cell lines.⁴

Additional reported applications for the relevant formats include: immunofluorescent staining¹, Western blotting², and immunohistochemical staining of formalin-fixed paraffin-embedded frozen tissue sections³.



Human peripheral blood granulocytes were stained with True-Stain Monocyte Blocker™ (Cat. No. 426103) and Siglec-9 (clone K8) APC/Fire™ 750 (filled histogram) or mouse IgG1, κ isotype control APC/Fire™ 750 (open histogram).

**Application
References:**

1. Costes V, et al. 1999. *Hum. Pathol.* 30:1405. (IF)
 2. Gattei V, et al. 1999. *Br. J. Haematol.* 104:152. (WB)
 3. Bologna-Molina R, et al. 2008. *Oral Oncol.* 44:805. (IHC)
 4. Itoua MR, et al. 2014. *Biomed. Res. Int.* 2014:536482.
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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. Monocyte adhesion to the arterial endothelium and subsequent migration into the intima are central events in the pathogenesis of atherosclerosis. CCR2 and MCP-1 have been associated to atherosclerotic plaques. MCP-1 is induced by modified-LDL in endothelial cells and may trigger firm adhesion of monocytes to vascular endothelium under flow conditions. Local overexpression of MCP-1 at vessel walls induces infiltration of macrophages and formation of atherosclerotic lesions. Obesity induces an inflammatory 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.

**Antigen
References:**

1. Wong LM, et al. 1997. *J. Biol. Chem.* 272:1038.
2. Papadopoulou C, et al. 2008. *Cytokine* 43:181.
3. Barlic J, et al. 2007. *J. Leukoc. Biol.* 82:226.
4. Gu L, et al. 1998. *Mol. Cell* 2:275.
5. Volpe S, et al. 2012. *PLoS One.* 7:e37208.