FITC Anti-Mouse CD196/CCR2 Antibody[C2Mab-6]

Catalog Number: AN01269C

Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

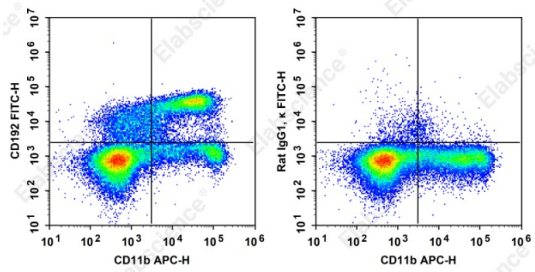
Description

Reactivity	Mouse
Host	Rat
Isotype	Rat IgG1, κ
Clone No.	C2Mab-6
Isotype Control	FITC Rat IgG1, κ Isotype Control[HRPN] [Product E-AB-F09822C]
Conjugation	FITC
Conjugation Information	FITC is designed to be excited by the Blue laser (488 nm) and detected using an optical filter centered near 530 nm (e.g., a 525/40 nm bandpass filter).
Storage Buffer	Phosphate buffered solution, pH 7.2, containing 0.09% stabilizer.

Applications — Recommended usage

FCM	Each lot of this antibody is quality control tested by flow cytometric analysis. **The amount of the reagent is suggested to be used 5 μL of antibody per test (million cells in 100 μL staining volume or per 100 μL of whole blood).** Please check your vial before the experiment. Since applications vary, the appropriate dilutions must be determined for individual use.

Data



Staining of C57BL/6 murine bone marrow cells with APC Anti-Mouse/Human CD11b Antibody and FITC Anti-Mouse CD192(CCR2)Antibody[C2Mab-6] (left) or FITC Rat IgG1, κ Isotype Control (right). Ly6G Negative cell population were used for analysis.

Preparation & Storage

Storage	Keep as concentrated solution. This product can be stored at 2-8°C for 24 months. Please protected from prolonged exposure to light and do not freeze.
Shipping	Ice bag

Antigen Information

Alternate Names	Cc-ckr-2;Ccr2;Ckr2;Cmkbr2;MCP-1 receptor
Uniprot ID	P51683
Gene ID	12772

Background

The C2Mab-6 monoclonal antibody reacts with mouse CC chemokine receptor type-2 (CCR2) also known as MCP-1 receptor and CD192. CCR2 is the primary receptor of C-C motif ligand 2 (CCL2) also known as monocyte chemoattractant protein-1 (MCP-1). CCR2 can also bind CCL7 and CCL12. CCR2 is a multi-pass transmembrane G protein-coupled receptor (GPCR) that is expressed on natural killer (NK) cells, macrophages, peripheral blood monocytes, and activated T cells, B cells, and immature dendritic cells (DCs). CCL2-CCR2 signaling is involved in the regulation of immune cells' chemotaxis/migration, and during microbial infections, CCR2-positive macrophages and neutrophils drive innate immune responses. In neurobiology, CCR2 plays an important role in mediating peripheral nerve injury-induced neuropathic pain and facilitates the recruitment of macrophages/monocytes to the injury site following cerebral injury. The crosstalk between CCR2 on tumor-infiltrating immune and stromal cells and CCL2 on tumor cells is known to influence tumor growth, angiogenesis, and metastasis. CCR2 antagonists are often studied in relation to unwanted immune responses in inflammatory and autoimmune diseases, immunomodulation of the tumor microenvironment (TME) for enhancing anti-tumor immunity, and Treg function. The C2Mab-6 antibody is raised against and binds to the N-terminal sequence of CCR2, a region important for ligand recognition and binding. Cell-based screening has shown that the C2Mab-6 antibody has a strong affinity for both endogenous and exogenous mouse CCR2, indicating that this antibody can potentially be used to block CCR2 in in vivo preclinical studies.

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