

PE/Fire™ 700 anti-human CD194 (CCR4)

Catalog # / 2397180 / 100 tests
Size: 2397175 / 25 tests

Clone: L291H4

Isotype: Mouse IgG1, κ

Immunogen: Human CCR4 transfected cells

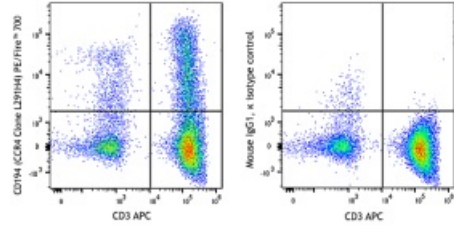
Reactivity: Human, Other

Preparation: The antibody was purified by affinity chromatography and conjugated with PE/Fire™ 700 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: HCDM listed

Concentration: Lot-specific



Human peripheral blood lymphocytes were stained with anti-human CD3 APC and anti-human CD194 (CCR4) (clone L291H4) PE/Fire™ 700 (left) or mouse IgG1, κ PE/Fire™ 700 isotype control (right).

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. It is recommended that the reagent be titrated for optimal performance for each application.

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.

- 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.

Description: CD194, also known as CCR4, is a CC chemokine receptor. It binds CCL17 and CCL22 and is expressed on a subset of T and B cells, basophils, monocytes, and NK cells. Human Th2 cells are characterized by the expression of CCR4 and CCR8, and these receptors are regulated differently during Th2 development. Human peripheral blood Tregs can be divided into two distinct populations based on the expression of CCR4. Freshly isolated Tregs express CCR4 and presumably represent memory-type Tregs, and CCR4⁻ Tregs require CD3-mediated activation to acquire a regulatory activity. Depletion of CCR4⁺ T cells leads to Th1-type polarization of CD4⁺ T cells and augmentation of CD8⁺ T cell responses to tumor antigens. CCR4 and its ligands are important for the recruitment of memory T cells into the skin in various cutaneous immune diseases.

- Antigen**
References:
1. Katschke KJ, *et al.* 2001 *Arthritis Rheum.* 44:1022.
 2. Colantonio L, *et al.* 2002 *Eur. J. Immunol.* 32:1264.
 3. Jakubzick C *et al.* 2004 *Am. J. Pathol.* 165:1211.
 4. Morimoto Y, *et al.* 2005 *J. Leukoc. Biol.* 78:753.
 5. Baatar J, *et al.* 2007 *J. Immunol.* 178:4891.
 6. Kusumoto M, *et al.* 2007 *J. Interferon. Cytokine Res.* 27:901.