

**APC/Fire™ 750 anti-human CD115 (CSF-1R)**

**Catalog # / Size:** 2336615 / 25 tests  
2336620 / 100 tests

**Clone:** 9-4D2-1E4

**Isotype:** Rat IgG1, κ

**Immunogen:** C-fms transduced Kirsten strain murine sarcoma virus transformed NRK cells.

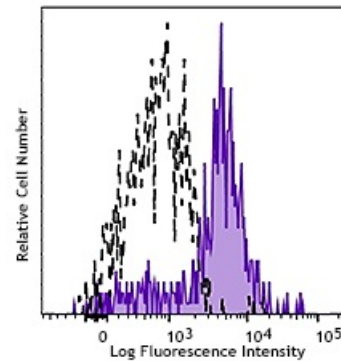
**Reactivity:** Human, Non-human primate, Other

**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:** V MA199

**Concentration:** Lot-specific



Human peripheral blood monocytes were stained with CD115 (CSF-1R, clone 9-4D2-1E4) APC/Fire™ 750 (filled histogram) or Rat IgG1, 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:** It has been reported that CD115 can be rapidly internalized, especially when samples are exposed to room temperature. Approximate 33% decrease in CD115 expression has been observed between 0 and 4 hours after sample collection, while overnight incubation of the cells results in complete CD115 downregulation. Pre-treatment with EDTA and low temperatures (2 to 8°C) helps in maintaining surface expression of CD115<sup>1</sup>.

**Application References:** 1. Breslin WL, et al. 2013. *J Immunol Methods*. 390(1-2):1 [PubMed](#)

**Description:** CSF-1R, also known as CD115 and M-CSFR, is a single-pass type I membrane protein and member of the platelet-derived growth factor receptor family. Structural studies of CD115 have described an Ig-like extracellular domain, a transmembrane domain, an intracellular juxtamembrane domain, a split tyrosine kinase domain, and a C-terminal tail receptor. Receptor activation induces homodimerization in addition to phosphorylation and ubiquitinylation of intracellular residues. The natural ligands of CD115 include M-CSF and IL-34. CD115 directly influences tissue macrophage and osteoclast differentiation and proliferation. It is expressed on monocytes/macrophages, plasmacytoid and conventional dendritic cells, and osteoclasts.

- Antigen**
- References:**
1. Sherr CJ, et al. 1989. *Blood* 73:1786
  2. Roussel MF, et al. 1991. *Nature* 353:361.
  3. Roussel MF, et al. 1989 *P. Natl. Acad. Sci. USA* 86:7924.