

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

Catalog # / 1277675 / 25 µg
Size: 1277680 / 100 µg

Clone: AFS98

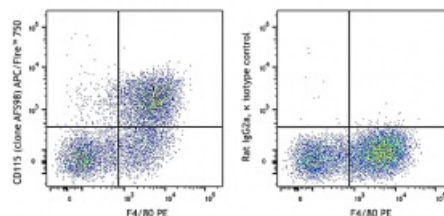
Isotype: Rat IgG2a, κ

Reactivity: Mouse

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.

Concentration: 0.2 mg/ml



Thioglycolate-elicited C57BL/6 mouse peritoneal macrophages were stained with F4/80 PE and CD115 (CSF-1R, clone AFS98) APC/Fire™ 750 (left) or Rat IgG2a, κ APC/Fire™ 750 isotype control (right) in the presence of True-Stain Monocyte Blocker™ (Cat. No. 426103).

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 ≤0.5 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.

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

Application Notes: Additional reported applications (for the relevant formats) include: blocking of ligand binding¹. The LEAF™ purified antibody (Endotoxin <0.1 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays.

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 CD115⁴.

- Application References:**
1. Sudo T, *et al.* 1995. *Oncogene* 11:2469.
 2. Murayama T, *et al.* 1999. *Circulation* 99:1740.
 3. Jaeger BN, *et al.* 2012. *J. Exp. Med.* 209:565. [PubMed](#)
 4. Breslin WL, *et al.* 2013. *J Immunol Methods.* 390(1-2):1 [PubMed](#)
 5. Dong L, *et al.* 2016. *Nature.* 539:304-308. [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. This c-fms (Fms proto-oncogene) gene product's natural ligands include M-CSF and IL-34. 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 ubiquitination of intracellular residues. CD115 directly influences tissue macrophage and osteoclast differentiation and proliferation. It is expressed on monocytes/macrophages, peritoneal exudate cells, plasmacytoid and conventional dendritic cells, and osteoclasts.

**Antigen
References:**

1. Sudo T, *et al.* 1995 *Oncogene* 11:2469.
2. Murayama T, *et al.* 1999 *Circulation* 99:1740.
3. Goswami S, *et al.* 2005 *Cancer Res.* 65:5278.
4. Yu W, *et al.* 2008 *J. Leuko. Biol.* 84:852.