

## Ultra-LEAF™ Purified anti-mouse CD115 (CSF-1R) Antibody

<b>Catalog# / Size</b>	135537 / 100 µg 135538 / 1 mg 135539 / 5 mg 135540 / 25 mg 135541 / 50 mg 135542 / 100 mg
<b>Clone</b>	AFS98
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	CSF-1R, M-CSFR, c-fms
<b>Isotype</b>	Rat IgG2a, κ
<b>Description</b>	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.

### Product Details

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<b>Verified Reactivity</b>	Mouse
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Rat
<b>Formulation</b>	0.2 µm filtered in phosphate-buffered solution, pH 7.2, containing no preservative. Endotoxin level is < 0.01 EU/µg of the protein (< 0.001 ng/µg of the protein) as determined by the LAL test.
<b>Preparation</b>	The Ultra-LEAF™ (Low Endotoxin, Azide-Free) antibody was purified by affinity chromatography.
<b>Concentration</b>	The antibody is bottled at the concentration indicated on the vial, typically between 2 mg/mL and 3 mg/mL. Older lots may have also been bottled at 1 mg/mL. To obtain lot-specific concentration, please enter the lot number in our <a href="#">Concentration and Expiration Lookup</a> or <a href="#">Certificate of Analysis</a> online tools.
<b>Storage &amp; Handling</b>	The antibody solution should be stored undiluted between 2°C and 8°C. This Ultra-LEAF™ solution contains no preservative; handle under aseptic conditions.
<b>Application</b>	<a href="#">FC - Quality tested</a> <a href="#">Block - Reported in the literature, not verified in house</a>
<b>Recommended Usage</b>	Each lot of this antibody is quality control tested by <a href="#">immunofluorescent staining with flow cytometric analysis</a> . For flow cytometric staining, the suggested use of this reagent is ≤ 0.25 µg per million cells in 100 µL volume. It is recommended that the reagent be titrated for optimal performance for each application.
<b>Application Notes</b>	Additional reported applications (for the relevant formats) include: blocking of ligand binding <sup>1</sup> . 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 CD115 <sup>4</sup> .
<b>Application References</b>	1. Sudo T, <i>et al.</i> 1995. <i>Oncogene</i> 11:2469.

(PubMed link indicates BioLegend citation)

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](#)

**RRID**  
AB\_2832481 (BioLegend Cat. No. 135537)  
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AB\_2832484 (BioLegend Cat. No. 135540)  
AB\_2832485 (BioLegend Cat. No. 135541)  
AB\_2832486 (BioLegend Cat. No. 135542)

## Antigen Details

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**Structure** Ig superfamily, 145 kD

**Distribution** Monocytes/macrophages, peritoneal exudate cells, plasmacytoid and conventional dendritic cells, osteoclasts

**Function** Growth factor receptor, tyrosine kinase

**Ligand/Receptor** Macrophage colony stimulating factor (M-CSF), IL-34

**Cell Type** Dendritic cells, Macrophages, Monocytes, Osteoclasts

**Biology Area** Immunology

**Molecular Family** CD Molecules, Cytokine/Chemokine Receptors

**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.

**Gene ID** [12978](#)

## Related Protocols

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[Cell Surface Flow Cytometry Staining Protocol](#)

## Other Formats

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Purified anti-mouse CD115 (CSF-1R), PE anti-mouse CD115 (CSF-1R), Biotin anti-mouse CD115 (CSF-1R), APC anti-mouse CD115 (CSF-1R), Alexa Fluor® 488 anti-mouse CD115 (CSF-1R), Brilliant Violet 421™ anti-mouse CD115 (CSF-1R), Brilliant Violet 605™ anti-mouse CD115 (CSF-1R), Brilliant Violet 711™ anti-mouse CD115 (CSF-1R), Alexa Fluor® 594 anti-mouse CD115 (CSF-1R), Purified anti-mouse CD115 (CSF-1R) (Maxpar® Ready), PE/Cyanine7 anti-mouse CD115 (CSF-1R), PerCP/Cyanine5.5 anti-mouse CD115 (CSF-1R), PE/Dazzle™ 594 anti-mouse CD115 (CSF-1R), Alexa Fluor® 647 anti-mouse CD115 (CSF-1R), APC/Cyanine7 anti-mouse CD115 (CSF-1R), TotalSeq™-A0105 anti-mouse CD115 (CSF-1R), APC/Fire™ 750 anti-mouse CD115 (CSF-1R), Ultra-LEAF™ Purified anti-mouse CD115 (CSF-1R), TotalSeq™-B0105 anti-mouse CD115 (CSF-1R), TotalSeq™-C0105 anti-mouse CD115 (CSF-1R)

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