Product Datasheet
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Mouse CD115 (CSF-1R) Antibody

Purified in vivo GOLD™ Functional Grade

Monoclonal Antibody

Product Information

Product No.:	C2169
Clone:	AFS98
RRID:	AB_2737459
Isotype:	Rat IgG2a κ
Storage:	Sterile 2-8°C

Product Description

Specificity:
CSF-1R antibody (clone AFS98) recognizes an epitope on mouse CD115.

Antigen Distribution:
CD115 (CSF-1R) is expressed on monocytes/macrophages, peritoneal exudate cells, plasmacytoid cells, dendritic cells, and osteoclasts.

Background:
CD115 antibody, clone AFS98, recognizes CD115, also known as mouse colony-stimulating factor 1 receptor (CSF-1R and macrophage colony-stimulating factor receptor (M-CSFR). CD115 is a 150kDa single-pass type I membrane protein encoded by the c-fms gene that belongs to the type III protein tyrosine kinase receptor family. CD115 has an immunoglobulin-like extracellular domain, transmembrane domain, and C-terminal tail receptor and is expressed by monocytes, macrophages, plasmacytoid and conventional dendritic cells (DCs), osteoclasts, and their precursors. CD115 is the receptor for CSF1, also known as M-CSF, and IL-34. Binding and signaling through CD115 regulates the proliferation, differentiation, survival, and cytokine-production of monocytes and macrophages1,2. In addition, CD115 plays a key role in the differentiation and proliferation of osteoclasts as well as their bone resorption activity3. Mutations in CSF-1R are associated with cancer, including myeloid malignancies, Alzheimer's disease, and other inflammatory and autoimmune diseases4. The presence of tumor-associated macrophages (TAMs) expressing CSF-1R correlates with poor survival in various tumor types5,6, and efforts to eliminate these TAMs using CSF1R small-molecule inhibitors and monoclonal antibodies are currently in clinical trials7.

Known Reactivity Species:
Mouse

Format:
Purified in vivo GOLD™ Functional Grade

Immunogen:
Not available

Formulation

This monoclonal antibody is aseptically packaged and formulated in 0.01 M phosphate buffered saline (150 mM NaCl) PBS pH 7.2 - 7.4 with no carrier protein, potassium, calcium or preservatives added. Due to inherent biochemical properties of antibodies, certain products may be prone to precipitation over time. Precipitation may be removed by aseptic centrifugation and/or filtration.

Purity

≥95% monomer by analytical SEC, >95% by SDS Page

Endotoxin

< 1.0 EU/mg as determined by the LAL method

Storage and Stability
Functional grade preclinical antibodies may be stored sterile as received at 2-8°C for up to one month. For longer term storage, aseptically aliquot in working volumes without diluting and store at ≤ -70°C.
Avoid Repeated Freeze Thaw Cycles.

Product Preparation
Functional grade preclinical antibodies are manufactured in an animal free facility using in vitro cell culture techniques and are purified by a multi-step process including the use of protein A or G to assure extremely low levels of endotoxins, leachable protein A or aggregates.

Applications
Applications and Recommended Usage (Quality Tested By Leinco):
FC The suggested concentration for this CSF-1R antibody (clone AFS98) antibody for staining cells in flow cytometry is ≤ 0.25 µg per 106 cells in a volume of 100 µl. Titration of the reagent is recommended for optimal performance for each application.

Other Applications Reported in Literature:

B

CyTOF®

FA

Depletion

Country of Origin
USA

References
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4. Tak, P. P., at al. (2016) Nat. Rev. Drug Disco. 16, 53–70
5. d'Amore F. (2014) Histopathology. 65:490–500
6. Wei YQ., et al. (2012) PLoS One. 7:e50946
7. Rüttinger D., et al. (2017) J Immunother Cancer. 5(1):53