Thermo SCIENTIFIC

DATA SHEET
Rev 022202G

CD115 / c-*fms* / CSF-1R / M-CSFR Ab-1 (Clone 2-4A5-4)

Rat Monoclonal Antibody

Cat. #RT-601-P0, -P1, or -P (0.1ml, 0.5ml, or 1.0ml at 200µg/ml) (Purified Ab with BSA and Azide)
Cat. #RT-601-P1ABX or -PABX (0.1ml or 0.2ml at 1.0mg/ml) (Purified Ab without BSA and Azide)

Description: CD115, also known as c-*fms*, macrophage Colony Stimulating Factor Receptor (M-CSFR), or CSF-1R, exists in immature ($gp130^{c\text{-}fms}$) and mature ($gp150^{c\text{-}fms}$) forms. CSF-1R exhibits an intrinsic tyrosine-specific protein kinase activity. It is expressed on the cells of the mononuclear phagocyte lineage. CSF-1R is an integral transmembrane glycoprotein consisting of a 512 amino acid extracellular domain that includes the CSF-1 binding site, a single 25 amino acid membrane-spanning segment, and a 435 amino acid cytoplasmic portion that includes the tyrosine kinase domain.

Comments: Ab-1 interferes with CSF-1 binding[2] and with ligand-dependent proliferation.[2] It also inhibits CSF-1-INDEPENDENT growth of cells expressing an oncogenic, mutant form of CSF-1R.[2] Ab-1 induces neither internalization nor turnover of CSF-1R.[2]

Mol. Wt. of Antigen: 130 and 150kDa

Epitope: aa 349-512

Species Reactivity: Human. Does not react with mouse and cat. Others-not known.

Clone Designation: 2-4A5-4 (Workshop V)

Ig Isotype / Light Chain: IgG_1 / κ

Immunogen: v-ras-transformed rat NRK cells expressing transduced human CSF-1R.[1]

Applications:

- Blocks Ligand Binding[2]
- Blocks Ligand-dependent Proliferation[2]
- Inhibits CSF-1-INDEPENDENT Growth of Cells Expressing Mutant CSF-1R[2]
- Immunofluorescence[1]
- Immunohistology (Acetone-fixed frozen)

The optimal dilution for a specific application should be determined by the investigator.

Positive Control: Tonsil

Cellular Localization: Cell membrane.

Storage and Stability:

Ab with sodium azide is stable for 24 months when stored at 2-8°C. Antibody WITHOUT sodium azide is stable for 36 months when stored at below 0°C.

Supplied As:

200µg/ml antibody purified from ascites fluid by ammonium sulfate precipitation and prepared in 10mM PBS, pH 7.4, with 0.2% BSA & 0.09% azide. Also available without BSA and azide at 1mg/ml.

Key References:

1. Ashmun RA, *et. al.* Blood, 1989, 73(3):827-37.
2. Sherr CJ, *et. al.* Blood, 1989, 73(7):1786-93.
3. Schlossman SF, *et. al.* Leucocyte Typing V, p988-989, Oxford Univ. Press, 1993.

Limitations and Warranty:

Our products are intended FOR RESEARCH USE ONLY and are not approved for clinical diagnosis, drug use or therapeutic procedures. No products are to be construed as a recommendation for use in violation of any patents. We make no representations, warranties or assurances as to the accuracy or completeness of information provided on our data sheets and website. Our warranty is limited to the actual price paid for the product. NeoMarkers is not liable for any property damage, personal injury, time or effort or economic loss caused by our products.

Material Safety Data:

This product is not licensed or approved for administration to humans or to animals other than the experimental animals. Standard Laboratory Practices should be followed when handling this material. The chemical, physical, and toxicological properties of this material have not been thoroughly investigated. Appropriate measures should be taken to avoid skin and eye contact, inhalation, and ingestion. The material contains 0.09% sodium azide as a preservative. Although the quantity of azide is very small, appropriate care should be taken when handling this material as indicated above. The National Institute of Occupational Safety and Health has issued a bulletin citing the potential explosion hazard due to the reaction of sodium azide with copper, lead, brass, or solder in the plumbing systems. Sodium azide forms hydrazoic acid in acidic conditions and should be discarded in a large volume of running water to avoid deposits forming in metal drainage pipes.

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