

Reagents Provided

Peridinin-Chlorophyll-Protein-Complex (PerCP)-conjugated rat monoclonal anti-mouse M-CSF R: Supplied as 25 µg of antibody in 1 mL saline containing up to 0.5% BSA and 0.1% sodium azide.

Clone #: 460615

Isotype: rat IgG_{2B}

Reagents Not Provided

- Flow Cytometry Staining Buffer (Catalog # FC001) or other BSA-supplemented saline buffer.

Storage

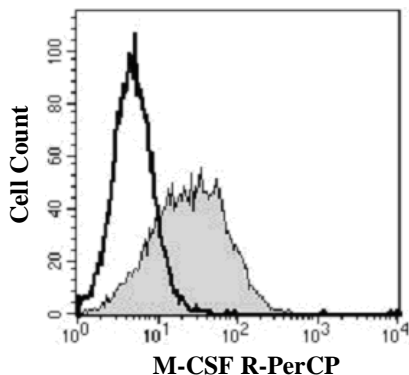
Reagents are stable for **twelve months** from the date of receipt when stored in the dark at 2° - 8° C.

Intended Use

Designed to quantitatively determine the percentage of cells bearing M-CSF R within a population and qualitatively determine the density of M-CSF R on cell surfaces by flow cytometry.

Product Description

This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a rat immunized with purified NS0-derived recombinant mouse M-CSF R (rmM-CSF R; aa 20 - 511; Accession # P09581). The IgG fraction of the tissue culture supernatant was purified by Protein G affinity chromatography. The purified antibody was then conjugated to PerCP fluorochrome. Cell surface expression of M-CSF R is determined by flow cytometry. PerCP has a maximum absorption of 482 nm and 564 nm and a maximum emission of 675 nm.



J774 cells were stained with PerCP-conjugated anti-mouse M-CSF R (Catalog # FAB3818C, filled histogram) or isotype control (Catalog # IC013C, open histogram).

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FOR RESEARCH USE ONLY. NOT FOR USE IN HUMANS.

Background Information

M-CSF R (macrophage colony stimulating factor receptor, *c-fms*) is a 165 kDa, 977 amino acid (aa) type I membrane glycoprotein. It is a member of the type III subfamily of receptor tyrosine kinases that contain five extracellular immunoglobulin-like domains and a cytosolic split kinase domain. M-CSF receptor is expressed primarily on monocytes, macrophages, dendritic cells, and stem cells, and regulates lineage decisions and maturation of these cells. The mouse M-CSF R extracellular domain shares > 99% aa identity with rat and 60 - 63% aa identity with human, dog, cat and cow M-CSF R. It can be released by TACE/ADAM17 cleavage.

Flow Cytometry Validation

This antibody has been tested for flow cytometry using J774 cells.

- Cells may be Fc-blocked with 1 µg of mouse IgG/10⁵ cells for 15 minutes at room temperature. Do not wash excess blocking IgG from this reaction.
- After blocking, 10 µL of conjugated antibody was added to 1 - 2.5 x 10⁵ cells and incubated for 30 minutes at room temperature.
- Unbound antibody was removed by washing the cells twice in Flow Cytometry Staining Buffer (Catalog # FC001). Note that whole blood requires a RBC lysis step at this point using Flow Cytometry Mouse Lyse Buffer (Catalog # FC003).
- The cells were resuspended in Flow Cytometry Staining Buffer for final flow cytometric analysis. As a control for this analysis, cells in a separate tube should be treated with PerCP-labeled rat IgG_{2B} antibody. This procedure may need to be modified, depending upon cell type and final utilization. Individual users may need to titrate to determine the optimal reagent amount for their specific use.

Warning: Contains sodium azide as a preservative - sodium azide may react with lead and copper plumbing to form explosive metal azides. Flush with large volumes of water during disposal.