# Technical Data Sheet Purified Rat Anti-Mouse CSF-1

# **Product Information**

Material Number:	552513
Alternate Name:	M-CSF
Size:	0.5 mg
Concentration:	0.5 mg/ml
Clone:	5A1
Isotype:	Rat IgG1, ĸ
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing $\leq 0.09\%$ sodium azide.

## Description

The macrophage-specific CSF (known as M-CSF or CSF-1) is hematopoietic growth factor that regulates the survival, proliferation, differentiation of mononuclear phagocytes. CSF-1 are found to be produced by a vast number of cells, and including fibroblasts, stromal cells, osteoblasts, and activated T cells, macrophages, and B cells.

This antibody is routinely tested by ELISA capture. Other applications were tested at BD Biosciences Pharmingen during antibody development only or reported in the literature.

# **Preparation and Storage**

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography. Store undiluted at 4° C.

# Application Notes

#### Application

ELISA Capture	Routinely Tested
Neutralization	Tested During Development

#### **Recommended Assay Procedure:**

**ELISA:** Purified 5A1 anti-mouse CSF-1 antibody (Cat. No. 552513) is useful as a capture antibody for a sandwich ELISA which measures mouse CSF-1 protein levels. Purified 5A1 anti-mouse CSF-1 antibody can be paired with a biotinylated antibody (such as D24) as the detector, with recombinant mouse CSF-1 protein as the standard. This capture antibody should be titrated between  $1 -4 \mu g/ml$  to determine the optimal coating concentration for ELISA. To obtain linear standard curves, doubling dilutions of recombinant mouse CSF-1 ranging from 2000 to 15 pg/ml are recommended for inclusion in each ELISA plate. For specific methodology, please visit our web site, www.bdbiosciences.com, and go to the protocols section or the chapter on ELISA in the Immune Function Handbook.

**Note:** This ELISA antibody pair shows no cross-reactivity with the following recombinant human cytokines: IL-1RI, IL-1α, IL-1α, IL-1β, IL-2, IL-2sR-α, IL-3, IL-4, IL-5, IL-6, IL-6R gp130, IL-7, IL-8, IL-10, IL-12 p40, IL-12 p70, IL-13, IL-15, TNF, LT-α, sTNFRI, sTNFRII, GM-CSF, TGFβ, IFNγ, CD40L, TRAIL, FasL.

**Neutralization**: Other reported applications include *in vitro* neutralization of CSF-1 bioactivity. The no azide/low endotoxin (NA/LE) format of 5A1 (Cat. No. 557858) is recommended for in vitro assays.

## **Product Notices**

- 1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
- 2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
- 3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

#### References

Lokeshwar BL, Lin HS. Development and characterization of monoclonal antibodies to murine macrophage colony-stimulating factor. *J Immunol.* 1988; 15(2):483-488.(Clone-specific: ELISA) Lokeshwar BL, Lin HS. A sandwich enzyme-linked immunoadsorbent assay for detection of murine macrophage colony-stimulating factor (CSF-1). *J Immunol Methods.* 1989; 123(1):123-129.(Clone-specific: ELISA)

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