# SANTA CRUZ BIOTECHNOLOGY, INC.

# M-CSF (D-4): sc-365779



#### BACKGROUND

The macrophage colony-stimulating factor (M-CSF), also designated CSF-1, was originally discovered in serum, urine and other biological fluids as a factor that can stimulate the formation of macrophage colonies from bone marrow hematopoietic progenitor cells. M-CSF is a homodimeric cytokine that is produced by fibroblasts, epithelial cells, bone marrow stromal cells, osteoblasts, keratinocytes, macrophages, T cells and B cells. M-CSF is a glycoprotein required for the proliferation and differentiation of mononuclear phagocytes, including osteoclasts. M-CSF has also been identified as an important mediator of the inflammatory response and can regulate the release of proinflammatory cytokines from macrophages. M-CSF exerts its pleiotropic effects by binding to a single type of high affinity cell surface receptor that is encoded by the c-Fms proto-oncogene.

#### **CHROMOSOMAL LOCATION**

Genetic locus: CSF1 (human) mapping to 1p13.3; Csf1 (mouse) mapping to 3 F2.3.

## SOURCE

M-CSF (D-4) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 39-64 near the N-terminus of M-CSF of human origin.

#### PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>2b</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

M-CSF (D-4) is available conjugated to agarose (sc-365779 AC), 500  $\mu$ g/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-365779 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365779 PE), fluorescein (sc-365779 FITC), Alexa Fluor<sup>®</sup> 488 (sc-365779 AF488), Alexa Fluor<sup>®</sup> 546 (sc-365779 AF546), Alexa Fluor<sup>®</sup> 594 (sc-365779 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-365779 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-365779 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-365779 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-365779 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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#### APPLICATIONS

M-CSF (D-4) is recommended for detection of M-CSF of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for M-CSF siRNA (h): sc-39393, M-CSF siRNA (m): sc-39394, M-CSF shRNA Plasmid (h): sc-39393-SH, M-CSF shRNA Plasmid (m): sc-39394-SH, M-CSF shRNA (h) Lentiviral Particles: sc-39393-V and M-CSF shRNA (m) Lentiviral Particles: sc-39394-V.

# Molecular Weight of M-CSF: 19 kDa.

# STORAGE

Store at 4° C, \*\*D0 NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

# DATA





M-CSF (D-4): sc-365779. Western blot analysis of M-CSF expression in NIH/3T3 (**A**), RAW 264.7 (**B**) and PC-12 (**C**) whole cell lysates.

M-CSF (D-4): sc-365779. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane localization.

## **SELECT PRODUCT CITATIONS**

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- 7. Hsu, W.C., et al. 2019. CSF-1 overexpression predicts poor prognosis in upper tract urothelial carcinomas. Dis. Markers 2019: 2724948.
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#### **RESEARCH USE**

For research use only, not for use in diagnostic procedures.