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Product data sheet

## M-CSF Monoclonal Antibody (2D10)

Catalog Number MA5-15599

Details		Species Reactivity	
Size	100 µL	Species reactivity	Human
Host/Isotope	Mouse / IgG1	Tested Applications	Dilution *
Class	Monoclonal	Immunohistochemistry (IHC)	1:200-1:1,000
Туре	Antibody	Western Blot (WB)	1:500-1:2,000
Clone	2D10	Immunocytochemistry (ICC/IF)	1:100
Immunogen	Purified recombinant fragment of human CSF1 expressed in E. Coli.	* Suggested working dilutions are given as a guide only. It is recommended that the user titrate the product for use in their own experiment using appropriate negative and positive controls.	
Conjugate	Unconjugated		
Form	Liquid		
Concentration	Conc. Not Determined		
Storage buffer	ascites		
Contains	0.03% sodium azide		
Storage Conditions	Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.		

### Product specific information

MA5-15599 targets CSF1 in IHC and WB applications and shows reactivity with Human samples. The MA5-15599 immunogen is purified recombinant fragment of human CSF1 expressed in E. Coli. MA5-15599 detects CSF1 which has a predicted molecular weight of approximately 60kDa.

#### **Background/Target Information**

M-CSF (Macrophage colony-stimulating factor, CSF-1) is a survival factor essential for the proliferation and development of monocytes, macrophages, and osteoclast progenitor cells. M-CSF also induces VEGF (vascular endothelial growth factor) secretion by macrophages, thereby mediating mobilization of endothelial progenitor cells and neovascularization. M-CSF is present as several bioactive isoforms that differ in potency and stability. The full-length protein is synthesized as a membrane-spanning protein that can be expressed on the cell surface or further cleaved and modified in the secretory vesicle. Further, M-CSF is a disulfide-bonded homodimer which is processed into one of two isoforms, a glycoprotein or a proteoglycan that has been modified by the addition of chondroitin sulfate to each subunit. Binding of M-CSF to its receptor, c-Fms (CSF-1R or CD115) induces dimerization of the receptor followed by internalization and degradation of the complex. Functionally, M-CSF is known to stimulate differentiation of hematopoietic stem cells to monocyte-macrophage cell populations in culture. M-CSF acts through the CSF receptor 1. Although human M-CSF shows activity on mouse cells, mouse CSF shows no activity on human cells.

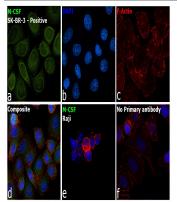
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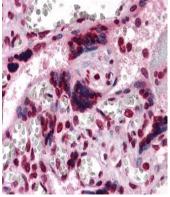
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#### Product Images For M-CSF Monoclonal Antibody (2D10)



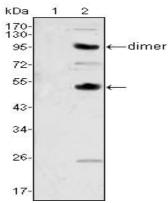
#### M-CSF Antibody (MA5-15599) in ICC/IF

Immunofluorescence analysis of Macrophage colony-stimulating factor 1 was performed using 70% confluent log phase SK-BR-3 and Raji cells. The cells were fixed with 4% paraformaldehyde for 10 minutes, permeabilized with 0.1% Triton<sup>™</sup> X-100 for 15 minutes, and blocked with 2% BSA for 45 minutes at room temperature. The cells were labeled with M-CSF Monoclonal Antibody (2D10) (Product # MA5-15599) at 1:100 in 0.1% BSA, incubated at 4 degree celsius overnight and then labeled with Donkey anti-Mouse IgG (H+L) Highly Cross-Adsorbed Secondary Antibody, Alexa Fluor Plus 488 (Product # A32766), (1:2000 dilution), for 45 minutes at room temperature (Panel a: Green). Nuclei (Panel b:Blue) were stained with ProLong<sup>™</sup> Diamond Antifade Mountant with DAPI (Product # P36962). F-actin (Panel c: Red) was stained with Rhodamine Phalloidin (Product # R415, 1:300). Panel d represents the merged image showing Cytoplasmic localization in SK-BR-3 but not in Raji cells as reported in the literature. Panel e represents control cells with no primary antibody to assess background. The images were captured at 60X magnification.



#### M-CSF Antibody (MA5-15599) in IHC (P)

Immunohistochemical analysis of paraffin-embedded human placenta tissues using CSF1 monoclonal antibody (Product # MA5-15599).



#### M-CSF Antibody (MA5-15599) in WB

Western blot analysis of CSF1 using a CSF1 monoclonal antibody (Product # MA5-15599) against a human recombinant CSF2 (AA:18-144) (1) and CSF1 (AA:33-496) (2).

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