



# Anti-CSF1 polyclonal antibody [Biotin] (DPABY-388)

This product is for research use only and is not intended for diagnostic use.

## PRODUCT INFORMATION

### Antigen Description

M-CSF, also known as CSF-1, is a four-alpha-helical-bundle cytokine that is the primary regulator of macrophage survival, proliferation and differentiation. M-CSF is also essential for the survival and proliferation of osteoclast progenitors. M-CSF also primes and enhances macrophage killing of tumor cells and microorganisms, regulates the release of cytokines and other inflammatory modulators from macrophages, and stimulates pinocytosis. M-CSF increases during pregnancy to support implantation and growth of the decidua and placenta. Sources of M-CSF include fibroblasts, activated macrophages, endometrial secretory epithelium, bone marrow stromal cells and activated endothelial cells. The M-CSF receptor (c-fms) transduces its pleiotropic effects and mediates its endocytosis. M-CSF mRNAs of various sizes occur. Full length human M-CSF transcripts encode a 522 amino acid (aa) type I transmembrane (TM) protein with a 464 aa extracellular region, a 21 aa TM domain, and a 37 aa cytoplasmic tail that forms a 140 kDa covalent dimer. Differential processing produces two proteolytically cleaved, secreted dimers. One is an N- and O- glycosylated 86 kDa dimer, while the other is modified by both glycosylation and chondroitin-sulfate proteoglycan (PG) to generate a 200 kDa subunit. Although PG-modified M-CSF can circulate, it may be immobilized by attachment to type V collagen. Shorter transcripts encode M-CSF that lack cleavage and PG sites and produce an N-glycosylated 68 kDa TM dimer and a slowly produced 44 kDa secreted dimer. Although forms may vary in activity and half-life, all contain the N-terminal 150 aa portion that is necessary and sufficient for interaction with the M-CSF receptor. The first 223 aa of mature human M-CSF shares 88%, 86%, 81% and 74% aa identity with corresponding regions of dog, cow, mouse and rat M-CSF, respectively. Human M-CSF is active in the mouse, but mouse M-CSF is reported to be species-specific.

### Specificity

Detects mouse M-CSF in ELISAs and Western blots. In sandwich immunoassays, less than 0.05% cross-reactivity with rhM-CSF is observed.

### Immunogen

E. coli-derived recombinant mouse M-CSF . Lys33-Glu262 Accession Number Q3U4F9

### Isotype

IgG

<b>Source/Host</b>	Goat
<b>Species Reactivity</b>	Mouse
<b>Purification</b>	Antigen Affinity-purified
<b>Conjugate</b>	Biotin
<b>Applications</b>	Western Blot, ELISA Detection (Matched Pair)
<b>Format</b>	Liquid
<b>Size</b>	50 µg
<b>Buffer</b>	Lyophilized from a 0.2 µm filtered solution in PBS with BSA as a carrier protein.
<b>Preservative</b>	None
<b>Storage</b>	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 6 months, -20 to -70 °C under sterile conditions after reconstitution.

## GENE INFORMATION

<b>Gene Name</b>	<a href="#">Csf1 colony stimulating factor 1 (macrophage) [ Mus musculus (house mouse) ]</a>
<b>Official Symbol</b>	CSF1
<b>Synonyms</b>	CSF1; colony stimulating factor 1 (macrophage); op; Csfm; MCSF; C87615; macrophage colony-stimulating factor 1; osteopetrosis;
<b>Entrez Gene ID</b>	<a href="#">12977</a>
<b>Protein Refseq</b>	<a href="#">NP_001107001</a>
<b>UniProt ID</b>	<a href="#">P07141</a>
<b>Chromosome Location</b>	3 F3; 3 46.83 cM
<b>Pathway</b>	Cytokine-cytokine receptor interaction; Cytokines and Inflammatory Response (BioCarta); Hematopoietic cell lineage; Osteoclast differentiation; PI3K-Akt signaling pathway; Rap1 signaling pathway; Ras signaling pathway; Rheumatoid arthritis;
<b>Function</b>	cytokine activity; growth factor activity; macrophage colony-stimulating factor receptor binding; protein binding; protein homodimerization activity;