

Datasheet: 4740-1255

**BATCH NUMBER 159370**

<b>Description:</b>	RECOMBINANT HUMAN M-CSF
<b>Name:</b>	M-CSF
<b>Format:</b>	Purified
<b>Product Type:</b>	Recombinant Protein
<b>Quantity:</b>	2 µg

## Product Details

### Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit [www.bio-rad-antibodies.com/protocols](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
ELISA	▪			
Functional Assays	▪			

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

<b>Target Species</b>	Human
<b>Product Form</b>	Purified recombinant protein - lyophilized
<b>Reconstitution</b>	Reconstitute in sterile distilled water to 0.1-0.5 mg/ml.
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative Stabilisers</b>	None present
<b>Carrier Free</b>	Yes
<b>Endotoxin Level</b>	< 0.1 ng/ug

### External Database Links

**UniProt:**

[P09603](https://www.uniprot.org/uniprot/P09603)

[Related reagents](#)

**Entrez Gene:**

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<b>Product Information</b>	Recombinant human macrophage colony stimulating factor (M-CSF) expressed in <i>E. coli</i> .
<b>Activity</b>	The ED <sub>50</sub> was determined by the dose dependent stimulation of the proliferation of murine M-NSF-60 cells is 1.0 ng/ml, corresponding to a specific activity of 1 x 10 <sup>6</sup> units/mg.
<b>Purity</b>	>98% by SDS PAGE and HPLC analyses
<b>References</b>	<ol style="list-style-type: none"><li>1. Ralph, P. <i>et al.</i> (1986) Molecular and biological properties of human macrophage growth factor, CSF-1. <a href="#">Cold Spring Harb Symp Quant Biol. 51:679 - 683</a></li><li>2. MacDonald, B.R. <i>et al.</i> (1986) Effects of human recombinant CSF-GM and highly purified CSF-1 on the formation of multinucleated cells with osteoclast characteristics in long-term bone marrow cultures <a href="#">J Bone Miner Res. 1: 227 - 233.</a></li><li>3. Ralph, P. <i>et al.</i> (1986) Biological properties and molecular biology of the human macrophage growth factor, CSF-1. <a href="#">Immunobiology. 172: 194 - 204.</a></li><li>4. Wong, G.G. (1987) Human CSF-1: molecular cloning and expression of 4-kb cDNA encoding the human urinary protein. <a href="#">Science. 235: 1504-1508</a></li></ol>
<b>Storage</b>	Store at -20°C only. Storage in frost-free freezers is not recommended. This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the protein. Should this product contain a precipitate we recommend microcentrifugation before use.
<b>Guarantee</b>	Guaranteed for 3 months from the date of reconstitution or until the date of expiry, whichever comes first. Please see label for expiry date.
<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10209 available at: <a href="https://www.bio-rad-antibodies.com/SDS/4740-1255">https://www.bio-rad-antibodies.com/SDS/4740-1255</a> 10209
<b>Regulatory</b>	For research purposes only

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To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://www.bio-rad-antibodies.com/datasheets)  
'M362127:200501'

Printed on 12 Aug 2023