

## Datasheet: 4740-1255

<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 the appropriate negative/positive controls.

<b>Target Species</b>	Human
<b>Product Form</b>	Purified recombinant protein - lyophilised
<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>Endotoxin Level</b>	<0.1 ng/µg (1 EU/µg).
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">P09603</a>   <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">1435</a>   CSF1   <a href="#">Related reagents</a></p>
<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

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**References**

1. Ralph, P. *et al.* (1986) Molecular and biological properties of human macrophage growth factor, CSF-1. [Cold Spring Harb Symp Quant Biol. 51:679 - 683](#)
2. MacDonald, B.R. *et al.* (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 [J Bone Miner Res. 1: 227 - 233.](#)
3. Ralph, P. *et al.* (1986) Biological properties and molecular biology of the human macrophage growth factor, CSF-1. [Immunobiology. 172: 194 - 204.](#)
4. Wong, G.G. (1987) Human CSF-1: molecular cloning and expression of 4-kb cDNA encoding the human urinary protein. [Science. 235: 1504-1508](#)

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**Storage**

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.

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**Shelf Life**

3 months from date of reconstitution.

Please see label for expiry date.

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**Health And Safety Information**

Material Safety Datasheet documentation #10209 available at:  
10209: <https://www.bio-rad-antibodies.com/uploads/MSDS/10209.pdf>

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**Regulatory**

For research purposes only

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<b>North &amp; South America</b>	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a>	<b>Worldwide</b>	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a>	<b>Europe</b>	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a>
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