

## Datasheet: PHP220

**BATCH NUMBER 163424**

|                      |                                      |
|----------------------|--------------------------------------|
| <b>Description:</b>  | RECOMBINANT HUMAN M-CSF              |
| <b>Name:</b>         | M-CSF                                |
| <b>Other names:</b>  | MACROPHAGE COLONY-STIMULATING FACTOR |
| <b>Format:</b>       | Rec. Protein                         |
| <b>Product Type:</b> | Recombinant Protein                  |
| <b>Quantity:</b>     | 10 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             | ▪   |    |                | 0.2 - 0.4ng/well   |
| Western Blotting  | ▪   |    |                | 1.5 - 3.0ng/lane   |
| Functional Assays | ▪   |    |                | 1.0 - 10.0ng/ml    |

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>           | <p>Reconstitute with 0.1 ml distilled water. For extended storage the addition of 0.1% BSA is recommended.</p> <p>Care should be taken during reconstitution as the protein may appear as a film at the bottom of the vial. Bio-Rad recommend that the vial is gently mixed after reconstitution.</p> |
| <b>Preparation</b>              | Purified recombinant M-CSF expressed in <i>E.coli</i>   |
| <b>Buffer Solution</b>          | Phosphate buffered saline   |
| <b>Preservative Stabilisers</b> | None present  |
| <b>Carrier Free</b>             | Yes   |

|                                       |  |
|---------------------------------------|--|
| <b>Endotoxin Level</b>                | < 1.0 EU/ug  |
| <b>Approx. Protein Concentrations</b> | 0.1 mg/ml after reconstitution   |
| <b>External Database Links</b>        | <p><b>UniProt:</b><br/> <a href="#">P09603</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b><br/> <a href="#">1435</a>    CSF1    <a href="#">Related reagents</a></p>  |
| <b>Product Information</b>            | <p><b>M-CSF (Macrophage colony-stimulating factor)</b> is a potent lineage restricted haematopoietic growth factor and member of the CSF family of hormone-like glycoproteins, which plays a key role in the regulation of cellular differentiation, proliferation, and the survival of blood monocytes, tissue macrophages and their progenitor cells.</p> <p>Along with sRANKL/CD254/OPGL, M-CSF is essential for osteoclastogenesis, acting through the tyrosine kinase receptor c-fms (colony stimulating factor 1 receptor), and facilitates haematopoietic recovery following bone marrow transplantation.</p> |
| <b>Protein Molecular Weight</b>       | 36.8 kDa (159 amino acid homodimer)  |
| <b>Activity</b>                       | The ED <sub>50</sub> , determined by the dose-dependent stimulation of the proliferation of M-NSF-60 cells, was ≤ 1 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   |
| <b>ELISA</b>                          | PHP220 may be used in ELISA applications with <a href="#">AHP1915</a> .  |
| <b>Western Blotting</b>               | PHP220 may be used under reducing or non-reducing western blotting conditions with <a href="#">AHP1915</a> .   |
| <b>Storage</b>                        | <p>Prior to reconstitution store at -20°C.</p> <p>After reconstitution store at -20°C.</p> <p>Storage in frost-free freezers is not recommended. This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.</p>  |
| <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 #10527 available at: <a href="https://www.bio-rad-antibodies.com/SDS/PHP220">https://www.bio-rad-antibodies.com/SDS/PHP220</a><br>10527  |
| <b>Regulatory</b>                     | For research purposes only   |

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## Related Products

### Recommended Useful Reagents

#### [RABBIT ANTI HUMAN M-CSF \(AHP1915\)](#)

**North & South** Tel: +1 800 265 7376

**America** Fax: +1 919 878 3751

Email: [antibody\\_sales\\_us@bio-rad.com](mailto:antibody_sales_us@bio-rad.com)

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Tel: +44 (0)1865 852 700

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Fax: +49 (0) 89 8090 95 50

Email: [antibody\\_sales\\_de@bio-rad.com](mailto:antibody_sales_de@bio-rad.com)

To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://bio-rad-antibodies.com/datasheets)  
'M407125:221004'

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