

# Human MCP-1 research grade

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### 1. Description

<b>Products</b>	Human MCP-1, research grade. Recombinant human monocyte chemotactic protein 1.						
	<table border="1"> <thead> <tr> <th>Content in µg</th><th>Order no.</th></tr> </thead> <tbody> <tr> <td>5</td><td>130-093-961</td></tr> <tr> <td>20</td><td>130-093-962</td></tr> </tbody> </table>	Content in µg	Order no.	5	130-093-961	20	130-093-962
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5	130-093-961						
20	130-093-962						
<b>Biological activity</b>	The ED <sub>50</sub> is ≤100 ng/mL corresponding to an activity of ≥1×10 <sup>4</sup> U/mg. <b>Note:</b> The ED <sub>50</sub> is determined by the ability to chemoattract human monocytes.						
<b>Primary structure</b>	Single, non-glycosylated polypeptide chain (76 amino acid residues).						
<b>Molecular mass</b>	8.6 kDa.						
<b>Source</b>	Produced in <i>E. coli</i> .						
<b>Product format</b>	Lyophilized from a filtered (0.2 µm) buffer solution.						
<b>Stabilizer</b>	None.						
<b>Purity</b>	>97% as determined by SDS-PAGE analysis.						
<b>Endotoxin level</b>	Low endotoxin (<1.0 EU/µg cytokine) as determined by Limulus Amebocyte Lysate (LAL) assay.						
<b>Storage</b>	Lyophilized Human MCP-1, research grade should be stored at -20 °C. The expiration date is indicated on the vial label. Upon reconstitution aliquots should be stored at -20 °C or below. Avoid repeated freeze-thaw cycles.						
<b>Reconstitution</b>	It is recommended to reconstitute lyophilized Human MCP-1, research grade with deionized sterile-filtered water to a final concentration of 0.1–1.0 mg/mL in a minimal volume of 50 µL. Further dilutions should be prepared with 0.1% bovine serum albumin (BSA) or human serum albumin (HSA) in phosphate-buffered saline.						

#### 1.1 Background information

MCP-1 belongs to the CC chemokine subfamily and is also known as CCL2. It signals predominantly through CCR2. MCP-1 is expressed by various cell types and besides monocyte and tissue macrophages

also attracts T cells and NK cells to sites of inflammation. In addition to chemotaxis further pro-inflammatory activities, such as all activation, angiogenesis, and fibrosis are attributed to MCP-1.

#### 1.2 Applications

Human MCP-1 can be used for a variety of applications, including:

- Chemotactic assays
- Inflammation studies.

Optimal concentration for a specific application should be determined by a dose-response experiment.

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