

# Active Recombinant Human Colony Stimulating Factor 1 (Macrophage)

**Cat. No.** CSF1-167H    **Lot. No.** (See product label)

## SPECIFICATION

<b>Product Overview</b>	Recombinant Human interleukin 4 encoding the N-terminal 190 amino acids of the human Macrophage Colony-Stimulating Factor 1 (M-CSF) protein and was expressed in modified <i>human 293 cells</i> .
<b>Species</b>	Human
<b>Source</b>	HEK293
<b>Description</b>	M-CSF (macrophage colony stimulating factor), also known as colony stimulating factor-1 (CSF-1), is a homodimeric glycoprotein the subunits of which are linked by disulfide bonds. Different splice variants of M-CSF have been found which differ at the C-terminus.
<b>Amino Acid Sequence</b>	EEVSEYCSHMIGSGH LQSLQRLIDSQME TSCQITFEFV DQEQLKDPV CYLKK AFL LV QD I ME DTMR FRDNTPNIAIA IVQLQELSLR LK SCFTK DYEELH DKACV RTF YE TPLQL LE K V KNVFNETHKLLDKDWNIFSKNCNNSFAECSSQDVVTKPDCN.
<b>Molecular Mass</b>	Under reducing conditions M-CSF migrates as two bands between 20 and 35 kDa in SDS-PAGE due to post-translational modifications, in particular glycosylation. This compares with unmodified M-CSF that has a predicted molecular mass of 18.4 kDa.
<b>PI</b>	M-CSF separates into a number of isoforms with a pI between 3.5 and 5 in 2D PAGE due to post-translational modifications, in particular glycosylation. This compares with the unmodified M-CSF that has a predicted pI of 4.8.

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<b>% Carbohydrate</b>	Purified M-CSF consists of 0–50% carbohydrate by weight.
<b>Glycosylation</b>	M-CSF contains N- and O-linked oligosaccharides.
<b>Purity</b>	>95%, as determined by SDS-PAGE and visualised by Coomassie Brilliant Blue.
<b>Formulation</b>	When reconstituted in 0.5 ml sterile phosphate-buffered saline, the solution will contain 1% human serum albumin (HSA) and 10% trehalose.
<b>Reconstitution</b>	It is recommended that 0.5 ml of sterile phosphate-buffered saline be added to the vial.
<b>Storage</b>	Lyophilised products should be stored at 2 to 8°C. Following reconstitution short-term storage at 4°C is recommended and longer-term storage of aliquots at -18 to -20°C. Repeated freeze thawing is not recommended.
<b>Activity</b>	The ED <sub>50</sub> of M-CSF is typically 5–15 ng /ml as measured in a cell proliferation assay using the M-CSF dependent mouse monocytic mNFS-60 cell line.

## GENE INFORMATION

<b>Gene Name</b>	<a href="#">CSF1 colony stimulating factor 1 (macrophage) [ Homo sapiens ]</a>
<b>Synonyms</b>	CSF1; colony stimulating factor 1 (macrophage); MCSF; MGC31930; OTTHUMP00000013363; OTTHUMP00000013364; colony stimulating factor 1; macrophage colony stimulating factor; OTTHUMP00000013362
<b>Gene ID</b>	<a href="#">1435</a>
<b>mRNA Refseq</b>	<a href="#">NM_000757</a>

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<b>Protein Refseq</b>	NP_000748
<b>MIM</b>	120420
<b>UniProt ID</b>	P09603
<b>Chromosome Location</b>	1q21-p13
<b>Pathway</b>	Cytokine-cytokine receptor interaction; Hematopoietic cell lineage
<b>Function</b>	cytokine activity; growth factor activity; protein binding; macrophage colony stimulating factor receptor binding; protein homodimerization activity

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