Active Recombinant Human Colony Stimulating Factor 1 (Macrophage)

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

SPECIFICATION

Product Overview	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*human 293 cells*.
Species	Human
Source	HEK293
Description	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.
Amino Acid Sequence	EEVSEYCSHMIGSGH LQSLQRLIDSQME TSCQITFEFV DQEQLKDPV CYLKK AFL LV QD I ME DTMR FRDNTPNAIA IVQLQELSLR LK SCFTK DYEEH DKACV RTF YE TPLQL LE K V KNVFNETKNLLDKDWNIFSKNCNNSFAECSSQDVVTKPDCN.
Molecular Mass	Under reducing conditionsM-CSFmigrates 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.
PI	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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% Carbohydrate	Purified M-CSF consists of 0–50% carbohydrate by weight.
Glycosylation	M-CSF contains N- and O-linked oligosaccharides.
Purity	>95%, as determined by SDS-PAGE and visualised by Coomassie Brilliant Blue.
Formulation	When reconstituted in 0.5 ml sterile phosphate-buffered saline, the solution will contain 1% human serum albumin (HSA) and 10% trehalose.
Reconstitution	It is recommended that 0.5 ml of sterile phosphate-buffered saline be added to the vial.
Storage	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.
Activity	The $ED_{50}$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

Gene Name	CSF1 colony stimulating factor 1 (macrophage) [Homo sapiens]
Synonyms	CSF1; colony stimulating factor 1 (macrophage); MCSF; MGC31930; OTTHUMP00000013363; OTTHUMP00000013364; colony stimulating factor 1; macrophage colony stimulating factor; OTTHUMP00000013362
Gene ID	1435
mRNA Refseq	NM_000757

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

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