

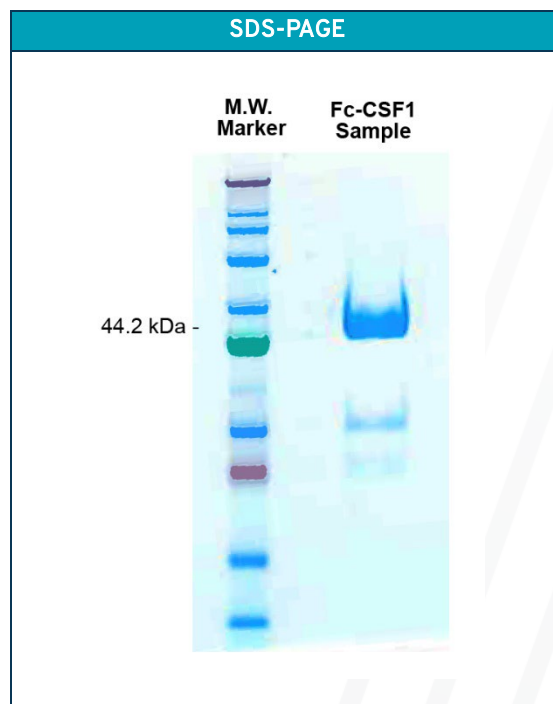
Product Information Sheet

Human Recombinant Fc-Fusion Tagged Colony-Stimulating Factor I (fc-CSF1) Protein

Catalog Number: GR1002-100C, GR1002-50C, GR1002-10C

Product Overview	
Product Name	Human Recombinant Fc-Fusion Tagged Colony-Stimulating Factor I (fc-CSF1) Protein
Catalog #s	GR1002-100C, GR1002-50C, GR1002-10C
Quantity	100µg (GR1002-100C), 50µg (GR1002-50C) and 10µg (GR1002-10C)
Alternative Names	Macrophage colony stimulating factor, Ianimostim, CSF-1, MCSF, and PG-M-CSF
Expression Source	Chinese Hamster Ovary (CHO) Cells
Species	Human
NCBI Gene ID	1435
UniProt	P09603
Product Form	Lyophilized powder

Product Description
<p>Colony stimulating factor 1 (CSF1), or macrophage colony-stimulating factor (M-CSF), is a secreted cytokine that causes hematopoietic stem cells to differentiate into macrophages or other related cell types¹. This growth factor is involved in the proliferation, differentiation, and survival of hematopoietic precursor cells, especially mononuclear phagocytes, such as macrophages and monocytes.</p> <p>CSF1 stimulates increased phagocytic and chemotactic activity of macrophages and monocytes. For hematopoietic progenitors, CSF1 interacts with membrane receptor CSR1R or M-CSF-R and modulates proliferation.</p> <p>The active form of CSF1 is found extracellularly as a disulfide-linked homodimer and is thought to be produced by proteolytic cleavage of membrane-bound precursors. Upon ligand binding to extracellular Ig domains, CSF1R dimerizes noncovalently and autophosphorylates several tyrosine residues. This first wave of CSF1R tyrosine phosphorylation creates phosphotyrosine-binding domains to which effector proteins can bind and initiate various cellular responses².</p> <p>CSF1 includes an Fc-fusion tag from human IgG1.</p>



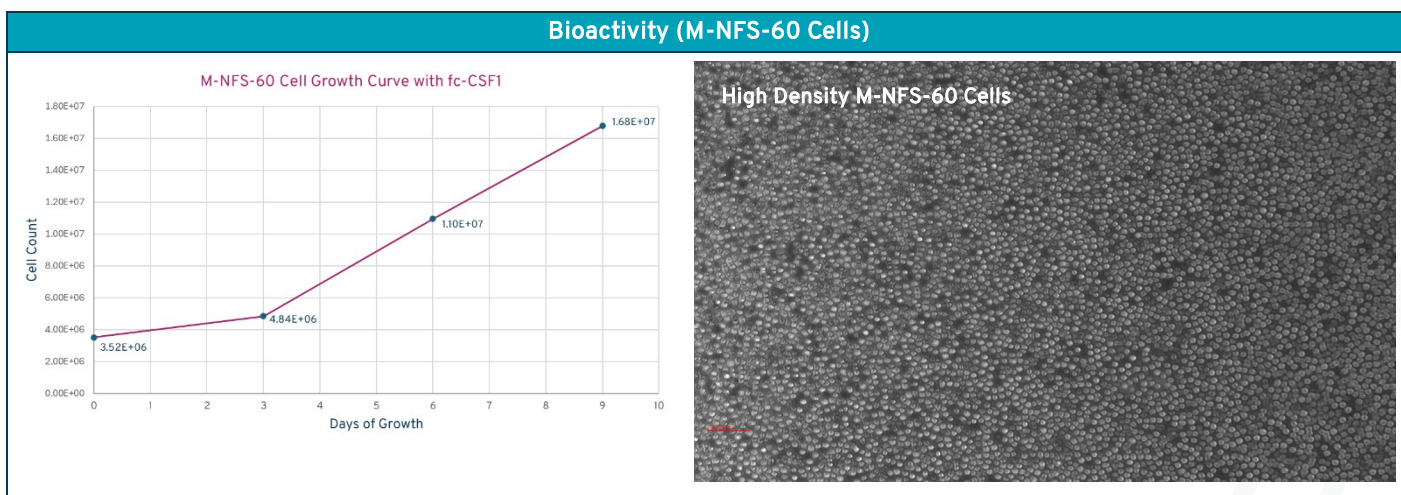
Technical Specifications	
Construct Detail	388-amino acid protein consisting of Glu33 to Gln181 region of CSF1
Source	CHO stable cell line expressing fc-tagged CSF1 growing in chemically defined media with no animal component or antibiotics
Protein Sequence	EEVSEYCSHMGISGHLQSLQRLIDSQMETSCQITFEFVDQEQLKDPVCYLKKAFLLVQDIMEDTMRFRDNTPNIAIVQLQELSLRLKSCFTKDYEEHDKACVRTFYETPLQLLEKVKNVFNETKNLLDKDWNIFSKNCNNSFAECSSQGSTTENLYFGQSTGTHTCPPCPAPPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSREEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTPPVLDSDGSFFLYSKLTVDKSRWQQGQNVFSCSVMHEALHNHYTQKLSLSLSPGK

FOR RESEARCH APPLICATIONS ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.

Formulation	10 x PBS pH 7.4	
Molecular Weight	SDS-PAGE	44.2kDa
Purity	SDS-PAGE	>95%
Endotoxin	LAL	<1 EU/μg
Bioactivity (Species)	DATA PENDING	DATA PENDING

Preparation Instructions	
Shipping Temperature	Ambient temperature
Formulation	10 x PBS pH 7.4
Reconstitution	Briefly centrifuge the vial before opening. The protein should be reconstituted in sterile 1xPBS pH 7.4 containing 0.1% endotoxin-free recombinant human serum albumin (HSA).

Storage and Stability		
	Temperature	Storage Time
Lyophilized Form	-20°C to -80°C	Until expiration date
Lyophilized Form	Room temperature	Two weeks
Reconstituted Form	-20°C to -80°C	Six months



¹ Stanley ER, Chitu V (June 2014). "CSF-1 receptor signaling in myeloid cells". Cold Spring Harbor Perspectives in Biology. 6 (6): a021857.

² Pixley FJ, Stanley ER (November 2004). "CSF-1 regulation of the wandering macrophage: complexity in action". Trends in Cell Biology. 14 (11): 628-638.

FOR RESEARCH APPLICATIONS ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.