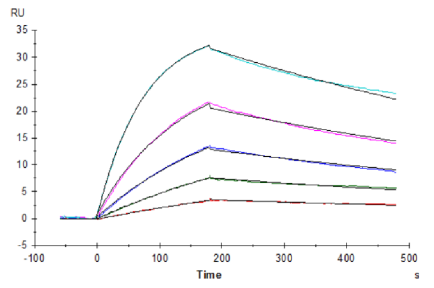
Bioactive HuPro®

CSF1 (Human) Recombinant Protein

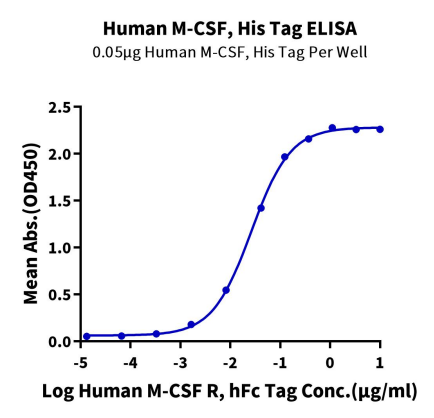
Catalog # P10205 Size 100 ug

Applications



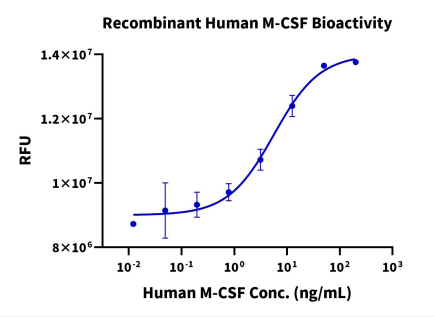
Surface Plasmon Resonance

Human M-CSF, His Tag captured on CM5 Chip via Anti-his Antibody can bind Human M-CSF R, hFc Tag with an affinity constant of 0.24 nM as determined in SPR assay (Biacore T200).



ELISA

Immobilized Human M-CSF, His Tag at 0.5 ug/ml (100 ul/Well) on the plate. Dose response curve for Human M-CSF R, hFc Tag with the EC_{50} of 26.3 ng/ml determined by ELISA (QC Test).



Bioactivity

Measured in a cell proliferation assay using RAW264.7 cells.The ED50 for this effect is 2.5 - 7.0 ng/ml.

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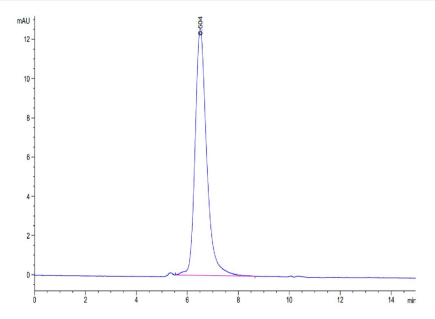
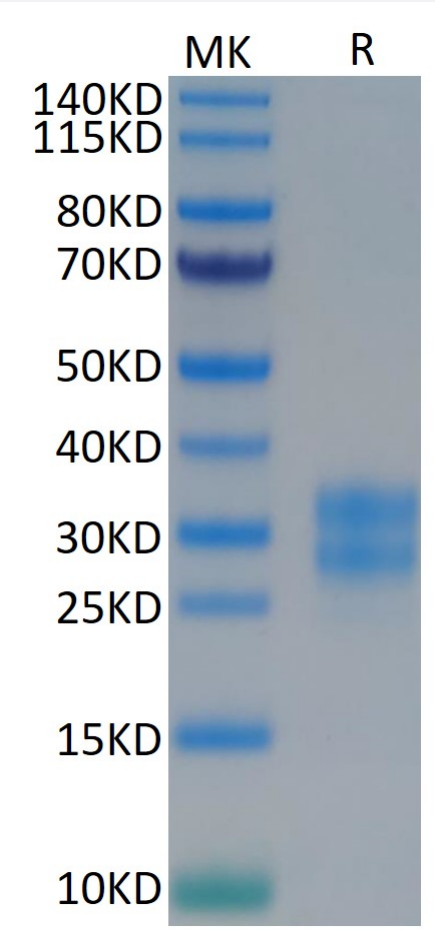


SEC-HPLC

The purity of Human M-CSF is greater than 95% as determined by SEC-HPLC.



Tris-Bis PAGE

Human M-CSF on Tris-Bis PAGE under reduced conditions. The purity is greater than 95%.

Specification

Product Description	Human CSF1 (P09603-1, Glu33-Asn190) partial recombinant protein with His-Avi tag at C-terminus expressed in HEK293 cells.
Sequence	Glu33-Asn190
Host	Human
Theoretical MW (kDa)	21.3
Form	Lyophilized
Preparation Method	Mammalian cell (HEK293) expression system

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Purity	> 95% as determined by Tris-Bis PAGE;> 95% as determined by HPLC
Endotoxin Level	< 1 EU per 1 ug of protein (determined by LAL method)
Quality Control Testing	Bioactivity, ELISA and SEC-HPLC ELISA Immobilized Human M-CSF, His Tag at 0.5 ug/ml (100 ul/Well) on the plate. Dose response curve for Human M-CSF R, hFc Tag with the EC_{50} of 26.3 ng/ml determined by ELISA (QC Test). Bioactivity Measured in a cell proliferation assay using RAW264.7 cells.The ED50 for this effect is 2.5 - 7.0 ng/ml. SEC-HPLC The purity of Human M-CSF is greater than 95% as determined by SEC-HPLC. Tris-Bis PAGE Human M-CSF on Tris-Bis PAGE under reduced conditions. The purity is greater than 95%.
Recommend Usage	Biological Activity ELISA SEC-HPLC SPR Tris-Bis PAGE The optimal working dilution should be determined by the end user.
Storage Buffer	Lyophilized from filtered solution in PBS, pH 7.4 (5% trehalose).
Storage Instruction	After reconstitution with deionized water to a final concentration more than 100 ug/ml, store at 4°C for 1 week. For long term storage, store at -80°C for 1 year. Aliquot to avoid repeated freezing and thawing.

Applications

- Functional Study
- Enzyme-linked Immunoabsorbent Assay
- Surface Plasmon Resonance

  Human M-CSF, His Tag captured on CM5 Chip via Anti-his Antibody can bind Human M-CSF R, hFc Tag with an affinity constant of 0.24 nM as determined in SPR assay (Biacore T200).

Gene Info — CSF1

Entrez GeneID	1435
Protein Accession#	P09603-1

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Gene Name	CSF1
Gene Alias	MCSF, MGC31930
Gene Description	colony stimulating factor 1 (macrophage)
Omim ID	120420
Gene Ontology	Hyperlink
Gene Summary	The protein encoded by this gene is a cytokine that controls the production, differentiation, and function of macrophages. The active form of the protein is found extracellularly as a disulfide-linked homodimer, and is thought to be produced by proteolytic cleavage of membrane-bound precursors. The encoded protein may be involved in development of the placenta. Four transcript variants encoding three different isoforms have been found for this gene. [provided by RefSeq
Other Designations	OTTHUMP00000013362|OTTHUMP00000013363|OTTHUMP00000013364|colony stimulating factor 1|macrophage colony stimulating factor

Pathway

- Cytokine-cytokine receptor interaction
- Hematopoietic cell lineage

Disease

- Alzheimer disease
- Cardiovascular Diseases
- Chorioamnionitis
- Coronary Artery Disease
- Diabetes Mellitus
- Edema
- Fetal Membranes
- Genetic Predisposition to Disease
- Inflammation
- Kidney Failure

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- Neoplasms
- Obstetric Labor
- Osteitis Deformans
- Ovarian Neoplasms
- Periodontitis
- Pre-Eclampsia
- Premature Birth

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