

Bioactive

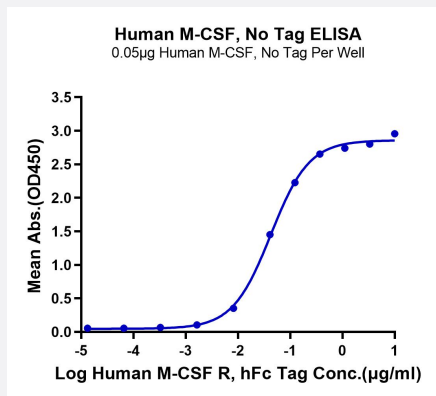
HuPro®

CSF1 (Human) Recombinant Protein

Catalog # P9897

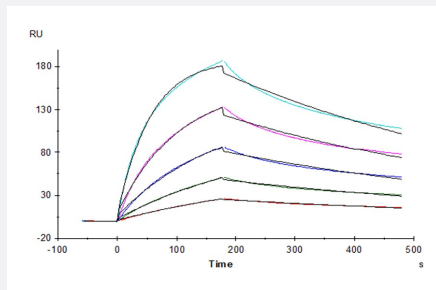
Size 100 ug

Applications



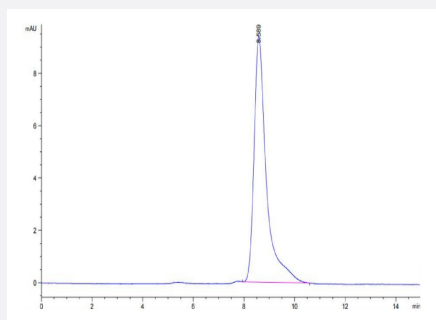
Enzyme-linked Immunoabsorbent Assay

Immobilized Human M-CSF at 0.5 ug/mL (100 uL/Well) on the plate. Dose response curve for Human M-CSF R, hFc Tag with the EC50 42.8 ng/mL determined by ELISA (QC Test).



Surface Plasmon Resonance

Human M-CSF, No Tag immobilized on CM5 Chip can bind Human M-CSF R, hFc Tag with an affinity constant of 2.06 nM as determined in SPR assay (Biacore T200).



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 condition. The purity is greater than 95%.

Specification

Product Description	Human CSF1 (P09603-1, Glu33-Asn190) partial recombinant protein expressed in HEK293 cells.
Sequence	Glu33-Asn190
Host	Human
Theoretical MW (kDa)	20.5
Form	Lyophilized
Preparation Method	Mammalian cell (HEK293) expression system
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)
Activity	The EC ₅₀ was 42.8 ng/mL, measured by ELISA at 0.5 ug/mL. The ED ₅₀ was 2.5 - 7.0 ng/mL, measured in a cell proliferation assay using RAW264.7 cells. The affinity constant of 2.06 nM as determined in SPR assay (Biacore T200).
Quality Control Testing	SEC-HPLC and Tris-Bis PAGE 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 condition. The purity is greater than 95%.
Recommend Usage	Biological Activity Cell proliferation assay ELISA SDS-PAGE SPR The optimal working dilution should be determined by the end user.
Storage Buffer	Lyophilized from sterile distilled Water is > 100 ug/mL
Storage Instruction	Store at 2°C to 8°C for 1 week. For long term storage, aliquot and store at -20°C to -80°C. Aliquot to avoid repeated freezing and thawing.

Note

Result of bioactivity analysis

Applications

- Enzyme-linked Immunoabsorbent Assay

Immobilized Human M-CSF at 0.5 ug/mL (100 uL/Well) on the plate. Dose response curve for Human M-CSF R, hFc Tag with the EC50 42.8 ng/mL determined by ELISA (QC Test).

- Functional Study

- SDS-PAGE

- Surface Plasmon Resonance

Human M-CSF, No Tag immobilized on CM5 Chip can bind Human M-CSF R, hFc Tag with an affinity constant of 2.06 nM as determined in SPR assay (Biacore T200).

Gene Info — CSF1

Entrez GeneID [1435](#)

Protein Accession# [P09603-1](#)

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](#)
- [Neoplasms](#)
- [Obstetric Labor](#)
- [Osteitis Deformans](#)
- [Ovarian Neoplasms](#)
- [Periodontitis](#)
- [Pre-Eclampsia](#)
- [Premature Birth](#)