

**Synonym**

CSF1R,C-FMS,CD115,CSFR,FIM2,FMS,M-CSFR

**Source**

Rabbit M-CSF R, His Tag (CSR-R82H5) is expressed from human 293 cells (HEK293). It contains AA Val 20 - Ser 503 (Accession # G1TTE0-1).

Predicted N-terminus: Val 20

**Molecular Characterization**

M-CSF R(Val 20 - Ser 503)  
G1TTE0-1

Poly-his

This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 55.2 kDa. The protein migrates as 66-80 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

**Endotoxin**

Less than 1.0 EU per µg by the LAL method.

**Purity**

>90% as determined by SDS-PAGE.

**Formulation**

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4. Normally trehalose is added as protectant before lyophilization.

Contact us for customized product form or formulation.

**Reconstitution**

Please see Certificate of Analysis for specific instructions.

*For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.*

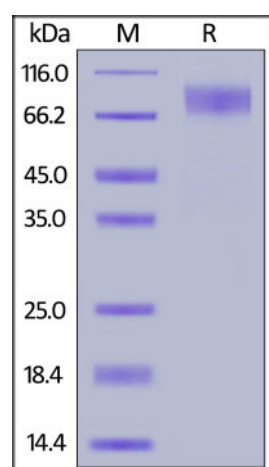
**Storage**

For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

**SDS-PAGE**

Rabbit M-CSF R, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 90%.

**Background**

Colony stimulating factor 1 receptor (CSF1R) is also known as macrophage colony-stimulating factor receptor (M-CSFR), CD115 Cluster of Differentiation 115 (CD115), C-FMS, CSFR, FIM2, FMS, and is a member of the tyrosine kinase subfamily of receptor tyrosine kinases (RTKs). CSF1R is a receptor for a cytokine called colony stimulating factor 1, The protein encoded by the CSFR1 gene is the receptor for colony stimulating factor 1, a cytokine which controls the production, differentiation, and function of macrophages. This receptor mediates most, if not all, of the biological effects of this cytokine. Ligand binding activates CSFR1 through a process of oligomerization and transphosphorylation. Mutations in CSF1R are associated with chronic myelomonocytic leukemia and type M4 acute myeloblastic leukemia. Increased levels of CSF1R1 are found in microglia in Alzheimer's disease and after brain injuries. The increased receptor expression causes

microglia to become more active. Both CSF1R, and its ligand colony stimulating factor 1 play an important role in the development of the mammary gland and may be involved in the process of mammary gland carcinogenesis.

#### References

- (1) [Ridge, et al., 1990, Proc Natl Acad Sci U S A., 87\(4\): 1377-80.](#)
- (2) [Mitrasinovic, O. M., 2005, Journal of Neuroscience 25 \(17\): 4442-51.](#)
- (3) [Tamimi, R. M., 2008, Cancer Research 68 \(1\): 18-21.](#)
- (4) [Pollard, J. W., 1994, Proceedings of the National Academy of Sciences 91 \(20\): 9312-6.](#)
- (5) [Sapi, Eva, 2004, Experimental Biology and Medicine 229 \(1\): 1-11.](#)

Please contact us via [TechSupport@acrobiosystems.com](mailto:TechSupport@acrobiosystems.com) if you have any question on this product.