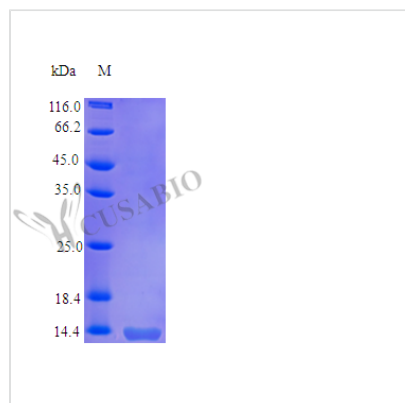




# Recombinant Human Granulocyte-macrophage colony-stimulating factor protein (CSF2) (Active)

<b>Product Code</b>	CSB-AP002081HU
<b>Uniprot No.</b>	P04141
<b>Form</b>	Lyophilized powder
<b>Storage Buffer</b>	Lyophilized from a 0.2 μm filtered PBS, pH 7.4
<b>Product Type</b>	Colony Stimulating Factor
<b>Immunogen Species</b>	Homo sapiens (Human)
<b>Biological Activity</b>	Fully biologically active when compared to standard. The ED50 as determined by a cell proliferation assay using human TF-1 cells is less than 0.1 ng/ml, corresponding to a specific activity of >1.0x10 <sup>7</sup> IU/mg.
<b>Purity</b>	>98% as determined by SDS-PAGE.
<b>Sequence</b>	APARSPSPST QPWEHVNAIQ EARRLLNLSR DTAEMNETV EVISEMFDLQ EPTCLQTRLE LYKQGLRGSL TKLKGPLTMM ASHYKQHCPP TPETSCATQI ITFESFKENL KDFLLVIPFD CWEPVQE
<b>Research Area</b>	Immunology
<b>Source</b>	E.coli
<b>Target Names</b>	CSF2
<b>Expression Region</b>	18-144aa
<b>Notes</b>	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
<b>Tag Info</b>	Tag-Free
<b>Mol. Weight</b>	14.5 kDa
<b>Protein Length</b>	Full Length of Mature Protein
<b>PubMed ID</b>	3925454; 3486413; 3898082; 3923623; 3876930; 15372022; 15489334; 1737041; 1837174; 1569568; 18692472

## Image



**Endotoxin**

Less than 1.0 EU/ $\mu$ g as determined by LAL method.

**Reconstitution**

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

**Shelf Life**

The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.