





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

Product Code	CSB-MP006045HU-WD
Abbreviation	Recombinant Human GM-CSF protein (Active)
Storage	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.
Uniprot No.	P04141
Form	Lyophilized
Storage Buffer	Lyophilized from a 0.2 $\mu m$ filtered solution containing PBS, 5% mannitoland 0.01% Tween 80, pH 7.4
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
<b>Biological Activity</b>	Measured in a cell proliferation assay using TF-1 cells. The ED50 for this effect is $\leq$ 0.2 ng/mL.
Purity	Greater than 95% as determined by SDS-PAGE.
Sequence	APARSPSPSTQPWEHVNAIQEARRLLNLSRDTAAEMNETVEVISEMFDLQEPT CLQTRLELYKQGLRGSLTKLKGPLTMMASHYKQHCPPTPETSCATQIITFESFK ENLKDFLLVIPFDCWEPVQE
Source	Mammalian cell
Target Names	GM-CSF
Expression Region	18-144aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	Tag free
Mol. Weight	14.5 kDa
Protein Length	Full Length of Mature Protein



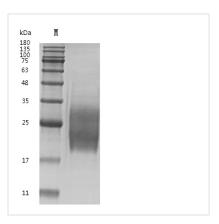
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(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

### **Endotoxin**

## ≤10 EU/mg by the 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

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