



# Recombinant Rat Granulocyte-macrophage colony-stimulating factor (Csf2)

<b>Product Code</b>	CSB-EP006045RA
<b>Storage</b>	Store at -20°C, for extended storage, conserve at -20°C or -80°C.
<b>Uniprot No.</b>	P48750
<b>Product Type</b>	Recombinant Protein
<b>Immunogen Species</b>	Rattus norvegicus (Rat)
<b>Purity</b>	>85% (SDS-PAGE)
<b>Sequence</b>	APT RSPNPVTRPW KHVDAIKEAL SLLNDMRALE NEKNEDVDII SNEFSIQRPT CVQTRLKLYK QGLRGNLTKL NGALTMIAASH YQTNCPTPE TDCEIEVTTF EDFIKNLKGF LFDIPFDCWK PVQK
<b>Source</b>	E.coli
<b>Target Names</b>	Csf2
<b>Protein Names</b>	Recommended name: Granulocyte-macrophage colony-stimulating factor Short name= GM-CSF Alternative name(s): Colony-stimulating factor Short name= CSF
<b>Expression Region</b>	18-144
<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 type will be determined during the manufacturing process.
<b>Protein Length</b>	Full Length of Mature Protein
<b>Target Details</b>	This protein is a cytokine that controls the production, differentiation, and function of granulocytes and macrophages. The active form of the protein is found extracellularly as a homodimer. This gene has been localized to a cluster of related genes at chromosome region 5q31, which is known to be associated with interstitial deletions in the 5q- syndrome and acute myelogenous leukemia. Other genes in the cluster include those encoding interleukins 4, 5, and 13.
<b>Reconstitution</b>	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.
<b>Shelf Life</b>	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.