



碧云天生物技术/Beyotime Biotechnology  
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## Recombinant Human G-CSF

产品编号	产品名称	包装
P5282-2μg	Recombinant Human G-CSF	2μg
P5282-10μg	Recombinant Human G-CSF	10μg
P5282-100μg	Recombinant Human G-CSF	100μg
P5282-1mg	Recombinant Human G-CSF	1mg

### 产品简介:

Species	Gene ID	Accession	Source	Length	MW	Tag
Human	1440	P09919	<i>E. coli</i>	174aa	18.7kDa	—

About this protein	
Name	Recombinant Human G-CSF (Recombinant Human Granulocyte Colony Stimulation Factor; rHuG-CSF); 重组人粒细胞集落刺激因子
Synonyms	CSF3; C17orf33; chromosome 17 open reading frame 33; colony stimulating factor 3 (granulocyte); CSF3OS; filgrastim; Filgrastim; G-CSF; GCSFlenograstim; granulocyte colony-stimulating factor; Lenograstim; MGC45931; pluripoietin; Pluripoietin
Purity	>98% by SDS-PAGE and HPLC analyses.
Biological Activity	Fully biologically active when compared to standard. The ED50 as determined by a cell proliferation assay using murine NFS-60 cells is less than 0.1ng/ml, corresponding to a specific activity of $>1.0 \times 10^7$ IU/mg.
Physical Appearance	Sterile Filtered lyophilized (freeze-dried) liquid-like powder
Formulation	Lyophilized from a 0.2μm filtered concentrated solution in 10mM sodium acetate buffer, containing 5% trehalose, pH4.0.
Endotoxin	Less than 1EU/μg of rHuG-CSF as determined by LAL method.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0mg/ml. Stock solutions should be apportioned into working aliquots and stored at $\leq -20^\circ\text{C}$ . Further dilutions should be made in appropriate buffered solutions.
Category	Cytokine
Background	Granulocyte colony stimulating factor (G-CSF) is a pleiotropic cytokine. It is mainly produced by monocytes and macrophages upon activation by endotoxin, TNF- $\alpha$ and IFN- $\gamma$ . Besides, many other cell types can secrete this protein after LPS, IL-1 or TNF- $\alpha$ activation, which are fibroblasts, endothelial cells, astrocytes and bone marrow stromal cells. Various carcinoma cell lines and myeloblastic leukemia cells can express G-CSF constitutively. G-CSF is cytokine that acts in hematopoiesis by controlling the production, differentiation, and function of 2 related white cell populations of the blood, the granulocytes and the monocytes/macrophages. In addition it may function in some adhesion or recognition events at the cell surface.  In humans, two distinct cDNA clones for G-CSF, encoding 207 and 204 amino acid (a.a.) precursor proteins, have been isolated. Both proteins have a 30a.a. signal peptide and have identical amino acid sequences except for a three a.a. insertion (deletion) at the 35th a.a. residue from the N-terminus of the mature protein. Human G-CSF is 73% identical at the amino acid level to murine G-CSF and the two proteins show species cross-reactivity.
Amino Acid Sequence	TPLGPASSLP QSFLLKCLEQ VRKIQGDGAA LQEKLCATYK LCHPEELVLL GHSLGIPWAP LSSCPSQALQ LAGCLS QLHS GLFLYQGLLQ ALEGISPELG PTLDTLQLDV ADFATTIQQQ MEELGMAPAL QPTQGAMPAP ASAFQRRAGG VLVASHLQSF LEVSYRVLRLH LAQP

### 包装清单:

产品编号	产品名称	包装
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P5282-2 $\mu$ g	Recombinant Human G-CSF	2 $\mu$ g
P5282-10 $\mu$ g	Recombinant Human G-CSF	10 $\mu$ g
P5282-100 $\mu$ g	Recombinant Human G-CSF	100 $\mu$ g
P5282-1mg	Recombinant Human G-CSF	1mg
—	说明书	1份

### 保存条件:

-20°C或更低温度保存，至少一年有效。由于蛋白的每次冻融均会引起部分失活，所以首次配制成相应浓度的储存液后(请根据产品简介中Reconstitution一栏的信息配制储存液)，须分装后-20°C或更低温度冻存，以避免反复冻融。

### 注意事项:

- 由于有些塑料管壁对某些蛋白有较强的吸附作用，溶液中的蛋白很容易粘附在管壁上，并且粘附后的蛋白很难与管壁分离。而载体蛋白(Carrier protein, 如0.1% BSA等)的主要作用是预先封闭塑料管壁上的蛋白结合位点，使细胞因子或重组蛋白不会粘附于管壁。所以一定要使用产品简介中Reconstitution一栏的信息配制储存液。
- 本产品冻干时添加了海藻糖作为保护剂，此时冻干后本产品看起来仍然像是液体，属于正常现象。在冻干工艺上，海藻糖作为常用的冻干保护剂，可显著阻止蛋白质二级结构的改变，防止冻干过程中的蛋白变性。
- 本产品仅限于专业人员的科学研究用，不得用于临床诊断或治疗，不得用于食品或药品，不得存放于普通住宅内。
- 为了您的安全和健康，请穿实验服并戴一次性手套操作。

### 使用说明:

1. 收到产品后请立即按照说明书推荐的条件保存。除非特别注明，碧云天相关产品均为冻干粉，由于微量的蛋白在冻干过程中沉积在管内，形成很薄或不可见的蛋白层，所以在打开管盖前，我们建议在离心机中约8,000-12,000g离心10-30秒，使附着在管盖或管壁上的蛋白聚集于管底。
2. 请根据实验目的并按照产品简介中Reconstitution一栏中的信息配制储存液。大多数细胞因子或重组蛋白的冻干粉是很容易溶解的，一般用移液枪的枪头轻吹几下或者轻轻摇晃瓶子，即可使细胞因子或重组蛋白完全溶解。请勿用vortex剧烈振荡，以免蛋白变性而失活。
3. 具体的最佳工作浓度请自行参考相关文献，或者根据实验目的，以及特定细胞和动物，通过实验进行摸索和优化。

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