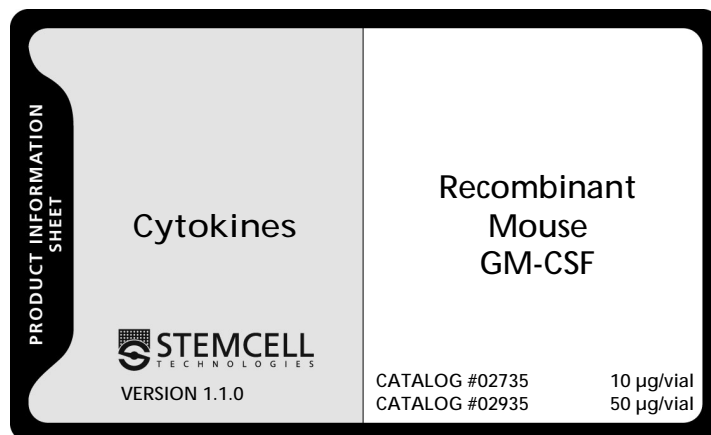


PRODUCT DESCRIPTION

Granulocyte-macrophage colony-stimulating factor (GM-CSF) is a potent species-specific stimulator of granulocyte-macrophage, eosinophil, megakaryocyte and erythroid progenitors. GM-CSF has also been reported to have a functional role on non-hematopoietic cells including endothelial cells. Additionally, GM-CSF can stimulate the proliferation of a number of tumor-derived cell lines, such as osteogenic sarcoma, carcinoma and adenocarcinoma. GM-CSF binds to a heterodimeric receptor formed by the GM-CSFR α /CD116 binding chain and the signal-transducing common β chain (CD131), which is also a component of the high affinity IL-3 and IL-5 receptors.

Recombinant mouse GM-CSF contains 125 amino acids and has a predicted molecular mass of approximately 14.8 kDa.



SOURCE

A DNA sequence encoding the mature mouse GM-CSF protein (Ala 18 - Lys 141; Accession #CAA26193) was expressed in *E. coli*.

PURITY

Purity is greater than 97%, as determined by SDS-PAGE and visualized by silver stain. Endotoxin level is <1.0 EU per 1 μ g cytokine, as determined by the LAL method.

ACTIVITY

The biological activity of recombinant mouse GM-CSF is measured by proliferation of the factor-dependent murine cell line, DA-3.¹ The ED₅₀ for this effect is typically 10 - 60 μ g/mL.

FORMULATION

Recombinant mouse GM-CSF is lyophilized from a 0.2 μ m filtered solution in phosphate buffered saline (PBS) containing 50 μ g bovine serum albumin per 1 μ g cytokine.

RECONSTITUTION

Reconstitute mouse GM-CSF at a concentration greater than 10 μ g/mL with sterile PBS containing at least 0.1% human or bovine serum albumin.

STABILITY AND STORAGE

Lyophilized mouse GM-CSF is stable for up to twelve months from date of receipt at -20°C to -70°C.

Reconstituted mouse GM-CSF can be stored under sterile conditions at 2°C - 8°C for one month, or at -20°C to -70°C (in a manual defrost freezer) for three months without detectable loss of activity.

Avoid repeated freezing and thawing.

REFERENCES

1. Ihle JN, Rein A, Mural R: Immunologic and virologic mechanisms in retrovirus-induced murine leukemogenesis. In: Advances in Viral Oncology (Volume 4) (G Klein, ed.), Raven Press, New York, pp 95-137, 1984



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