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## 32-7033: Recombinant Human GM-CSF/CSF2 (P. pastoris)

Gene ID: CSF2
Gene ID: 1437
Uniprot ID: P04141

## **Description**

Source: P.Pichia. MW:14.4kD.

Recombinant Human Granulocyte-Macrophage Colony-Stimulating Factor is produced by our Yeast expression system and the target gene encoding Ala18-Glu144 is expressed. GM-CSF was initially characterized as a growth factor that can support the in vitro colony formation of granulocyte macrophage progenitors. It is produced by a number of different cell types (including activated T cells, B cells, macrophages, mast cells, endothelial cells and fibroblasts) in response to cytokine of immune and inflammatory stimuli. Besides granulocyte-macrophage progenitors, GM-CSF is also a growth factor for erythroid, megakaryocyte and eosinophil progenitors. On mature hematopoietic, monocytes/macrophages, and eosinophils, GM-CSF has also been reported to have a functional role on non-hematopoitic cells. It can induce human endothelial cells to migrate and proliferate. Additionally, GM-CSF can also stimulate the proliferation of a number of tumor cell lines, including osteogenic sarcoma, carcinoma and adenocarcinoma cell lines.

## **Product Info**

**Amount:** 10 μg / 50 μg

Content: Lyophilized from a 0.2 µm filtered solution of 10mM TrisHCl, 4% Mannitol, 1% Sucrose, pH 8.5.

Lyophilized protein should be stored at -20°C, though stable at room temperature for 3 weeks.

**Storage condition :** Reconstituted protein solution can be stored at 4-7°C for 2-7 days. Aliquots of reconstituted

samples are stable at -20°C for 3 months.

Amino Acid: APARSPSPSTQPWEHVNAIQEARRLLNLSRDTAAEMNETVEVISEMFDLQEPTCLQTRLELYKQGLRGSLTKLK

GPLTMMASHYKQHCPPTPETSCATQIITFESFKENLKDFLLVIPFDCWEPVQE

## **Application Note**

Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is not recommended to reconstitute to a concentration less than 100  $\tilde{A} \square \hat{A} \mu g/ml$ . Dissolve the lyophilized protein in ddH2O. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.

**Endotoxin**: Less than  $0.1 \text{ ng}/\tilde{A} \square \hat{A} \mu g$  (1 IEU/ $\tilde{A} \square \hat{A} \mu g$ ) as determined by LAL test.

Biological Activity: ED50 is less than 0.2 ng/ml. Specific Activity of 5.0 x 10<sup>6</sup> IU/ mg.