



Recombinant Human His-GM-CSF protein

Catalog Number: E13-010-1, E13-010-2

Amount: 10μg, 50μg

Product description: Human N-his-tag GM-CSF produced in E.coli is non-glycosylated polypeptide chain containing

155amino acids (29-155 a.a; predicted MW=17.6kDa). It is fused to 28 amino acid His-tag at N-terminal. The recombinant protein was purified by Ni-NTA affinity column and ion exchange chromatography. Purity was greater than 95 % by Coomassie blue staining SDS-PAGE (Figure

1).

Background: Colony-stimulating factors (CSFs) are a group of glycoproteins that regulate the proliferation

and differentiation of hematopoietic cells. GM-CSF is expressed in response to inflammatory stimuli by various cell types including T lymphocytes, macrophages, fibroblasts and endothelial cells and stimulates specifically the proliferation of cells of macrophage and granulocyte lineages. GM-CSF enhances the production and survival of neutrophils, eosinophils and macrophages, which play a key role in the innate immune response Accordingly, GM-CSF is used to restore hematopoietic dysfunctions, to stimulate the hyper-production of functionally primed effectors cells, and to augment host defense against infection and malignant diseases. Endogenous myeloid CSFs, such as GM-CSF, have been used to enhance the clinical

management of immune suppressed patients with cancer.

GenBank accession

number:

Amino acid sequence: MGSSHHHHHHSSGLVPRGSHMENLYFQGAPARSPSTQPWEHVNAIQEARRLLNLSRDTA

AEMNETVEVISEMFDLQEPTCLQTRLELYKQGLRGSLTKLKGPLTMMASHYKHCPPTPETSC

ATQIITFESFKENLKDFLLVIPFDCWEPVQE

Formulation: Lyophilized from a 0.22µm filtered solution at a concentration of 1mg/ml in 50mM Tris-HCl pH

7.5, 150mM NaCl.

CAA26822

Reconstitution: We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the

bottom. Reconstitute in sterile distilled water to a concentration of 1.0 mg/ml.

Shipping&Stablity: The Product is shipped at ambient temperature. Upon reconstitution, the preparation is stable

for up to 1 month at 2-8°C. For long term storage, apportion the reconstituted preparation into

working aliquots and store at -20°C to -70°C. Avoid repeated freeze/thaw cycles.



Figure1. The purity of recombinant protein GM-CSF (AE13-010). 12 % SDS-PAGE, 2.7μg protein