

**Recombinant Human
GM-CSF (Granulocyte-Macrophage Colony-Stimulating Factor)**

Catalog # (Size): HZ-1002 (10µg) HZ-1173 (100µg) HZ-1082 (1000µg)

Product Description

- Endotoxin-free
- Animal-derived product free
- Available in Bulk
- Higher Stability in Media
- 10-Fold Higher Potency
- Lyophilized and Carrier Free (CF)

Xeno-free GM-CSF^{HuXp} is produced in a human cell expression system in serum-free, chemically defined media. It has a demonstrated greater stability under cell culture conditions making it ideal for efficient generation of Human Dendritic Cells. (See the preferred, time saving G4 protocol available at www.HumanZyme.com). GM-CSF is a hematopoietic growth factor that stimulates the development of early erythroid megakaryocytic and eosinophilic progenitor cells. It is produced in endothelial cells, monocytes, fibroblasts, and T lymphocytes. Recombinant Human GM-CSF is a 15 to 36 kDa globular protein consisting of 128 amino acids, containing two intramolecular disulfide bonds and two potential N-linked glycosylation sites.

Typical Specifications

Species	Human
Expression	HEK293 Cell Expressed
Activity	Typically ≤ 2 ng/mL EC ₅₀
Purity	>95%
Endotoxin	<1 EU/µg
Molecular Mass	15 to 36 kDa, monomer, glycosylated
Formulation	1x PBS

Purity Confirmation

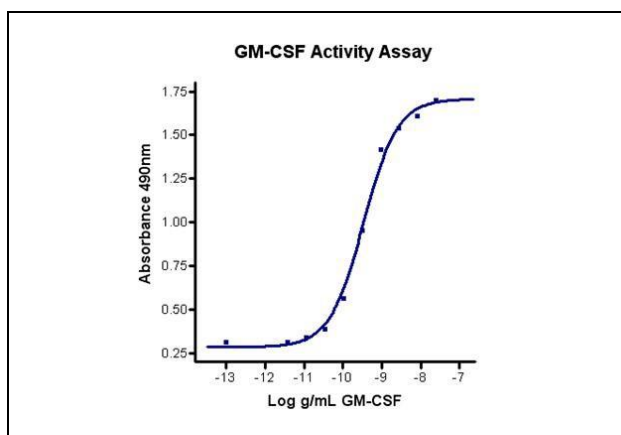
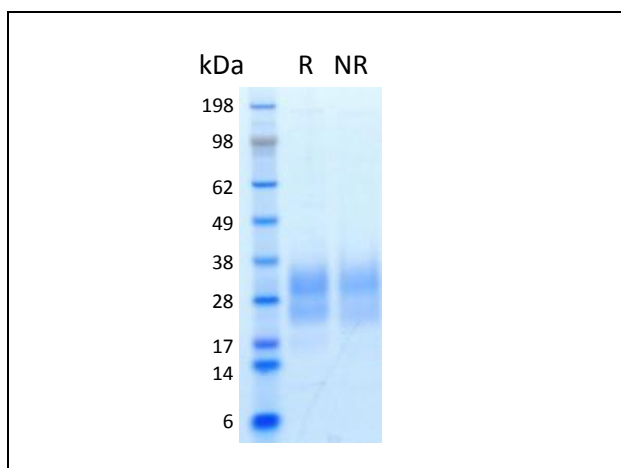
The protein was resolved by SDS-polyacrylamide gel electrophoresis and the gel was stained with Coomassie blue.

Activity Assay

The activity was determined by the dose-dependent stimulation of the proliferation of human TF-1 cells (human erythroleukemic indicator cell line).



All HumaXpress[®] HumanKine[™] are animal-component-free and Xeno-free[™]



Reconstitution Buffer

Briefly centrifuge the vial before opening. It is recommended to reconstitute the protein in sterile 1x PBS containing 0.1% endotoxin-free recombinant human serum albumin (HSA).

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