

PRODUCT DATA SHEET



Bioworld Technology, Inc.

Recombinant M-CSF, Human

Catalog Number: BK0127-1mg

Source: Escherichia coli.

Quantity: 1mg

Description:

Macrophage Colony-Stimulating Factor 1 (M-CSF), involved especially in monocytopenia, [1] is a hematopoietic growth factor. In mammals, it exists in three isoforms, which invariably share an N-terminal 32-aa signal peptide, a 149-residue growth factor domain, a 21-residue transmembrane region and a 37-aa cytoplasmic tail [2]. The biological activity of human M-CSF is maintained within the 149-aa growth factor domain [3], and it is only active in the disulfide-linked dimeric form [4], which is bonded at Cys63. Recombinant human Macrophage Colony-Stimulating Factor 1 (rhM-CSF) produced in E. coli is a disulfide-linked homodimer containing two non-glycosylated polypeptide chains of 159 amino acids each. A fully biologically active molecule, rhM-CSF has a molecular mass of 28 kDa analyzed by non-reducing SDS-PAGE and is obtained by proprietary refolding and chromatographic techniques at GenScript.

Molecular Weight:

28 kDa, observed by non-reducing SDS-PAGE.

Purity:

> 95% as analyzed by non-reducing SDS-PAGE.

Biological Activity:

ED₅₀ of 1 - 3 ng/ml, measured by cell proliferation assay of M-NFS-60, corresponding to a specific activity of 3.3×10^5 - 1×10^6 units/mg.

Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation:

Lyophilized after extensive dialysis against 50 mM Tris-HCl, pH 8.0.

AA Sequence:

MEEVSEYCSHMIGSGHLQSLQRLID-
SQMETSCQITFEFVDQEQLKDPVCYLK-
KAFLLVQDIMEDTMRFRD-
NTPNAIAIVQLQELSLRLKSCFTKDYEEHDKACV
RTFYET-
PLQLLEKVKNVFNETKNLLDKDWNIFSKNCNNS
FAECSSQGHERQSEGS

Endotoxin:

<1 EU/μg, determined by LAL method.

Reconstitution:

Reconstituted in ddH₂O or PBS or Tris-HCl, pH 8.0 at 100 μg/ml.

Storage:

Lyophilized recombinant human Macrophage Colony-Stimulating Factor 1 (rhM-CSF) remains stable up to 6 months at -80 °C from date of receipt. Upon reconstitution, rhM-CSF should be stable up to 2 weeks at 4 °C or up to 3 months at -20 °C.

Usage:

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