For Research Use Only Recombinant Human GM-CSF protein oroteintech (His Tag) www.ptgcn.com Catalog Number: Eg0189 Species: Human Purity: >90 %, SDS-PAGE **Basic Information** Tag: His Tag Purity: >90 %, SDS-PAGE **Technical Specifications Endotoxin Level:** <0.1 EU/ µg protein, LAL method Source HEK293-derived Human GM-CSF protein Ala18-Glu144 (Accession# P04141) with a His tag at the N-terminus. GenelD: 1437 Accession: P04141 Predicted Molecular Mass: 15.3 kDa **SDS-PAGE:** 18-25 kDa, reducing (R) conditions Formulation Lyophilized from 0.22 $\,\mu$ m filtered solution in PBS, pH 7.4. Normally 5% trehalose and 5% mannitol are added as protectants before lyophilization. **Biological Activity** Not tested Storage and Shipping Storage: It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles. Until expiry date, -20°C to -80°C as lyophilized proteins. • 3 months, -20°C to -80°C under sterile conditions after reconstitution. Shippin The product is shipped at ambient temperature. Upon receipt, store it immediately at the recommended temperature. Reconstitution Briefly centrifuge the tube before opening. Reconstitute at 0.1-0.5 mg/mL in sterile water. CSF2, also named as GM-CSF, is an important hematopoietic growth factor and immune modulator, which is produced by a variety of cell types including T cells, macrophages, endothelial cells and fibroblasts upon receiving immune stimuli. It was originally recognized as a stimulator for the proliferation of granulocytes and macrophages from bone marrow precursor cells. It has also been shown to promote the survival and activation of mature myeloid cells and therefore contributes to the maintenance of innate immune homeostasis. Recent studies suggest that GM-CSF also has proinflammatory functions and plays critical roles in the development of autoimmune and inflammatory diseases, particularly in Th17 driven diseases. GM-CSF also plays a role in embryonic development by functioning as an embryokine produced by reproductive tract. Background References 1. Burgess AW. et al. (1977). J Biol Chem. 252: 1998-2003. 2. Shi Y. et al. (2006). Cell Res. 16: 126-33. 3. Hamilton JA. et al. (2013)Trends Immunol. 3: 81-9. 4. Codarri L. et al. (2011) Nat Immunol. 12: 560-7. 5. Hamilton JA. et al. (2013)Trends Immunol. 23: 403-8. 6. Hansen PJ. et al. (2014) Ánim Reprod Sci. 149: 59-6.

Synonyms

CSF2, GM-CSF, Colony stimulating factor, Colony Stimulating Factor 2, Colony-stimulating factor

Selected Validation Data



Purity of Recombinant Human GM-CSF was determined by SDS-PAGE. The protein was resolved in an SDS-PAGE in reducing (R) and non-reducing (NR) conditions and stained using Coomassie blue.

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.