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ProductInformation

GROb
Human, Recombinant
Expressed in *E. coli*

Product No. **G7909**

Description

The product of the human GRO gene is a cytokine with inflammatory and growth-regulatory properties.[1] GROβ shares 90% identity at the amino acid level with GROα.[1] Compared with GROα, there are 11 amino acid substitutions in GROβ. The substitution of leucine at amino acid 54 in GROβ for proline in GROα changes the protein conformation of GROβ.[2] GROβ is a member of the chemokine a (C-X-C) subfamily. The GROβ gene consists of four exons and three introns.[1] GROβ is found on human chromosome 4q21. IL-1 and TNFα induce the expression of GROβ mRNA in human cell lines. GROβ is expressed in monocytes, fibroblasts, melanocytes, keratinocytes, neutrophils, lymphocytes and umbilical vein endothelial cells.[3,4] GROβ is a potent chemoattractant for human neutrophils, but not human monocytes.

Performance Characteristics

The biological activity of recombinant, human GROβ is measured by its ability to induce myeloperoxidase release from cytochalasin B treated neutrophils.[5] The EC_{50} is defined as the effective concentration of growth factor that elicits a 50% increase in myeloperoxidase release from neutrophils in a cell based bioassay.

Product Information

Expressed in *E. coli*
Molecular Weight: 8 kD
Purity: ≥ 97% as determined by SDS-PAGE
EC_{50}: 0.1-1.0 µg/ml
Package Size: 10 µg/vial
Formulation: Lyophilized from a 0.2 µm-filtered solution of 30% acetonitrile and 0.1% trifluoroacetic acid.
Carrier Protein: 500 µg of bovine serum albumin
Sterility: 0.2 µm-filtered, aseptic fill
Endotoxin: ≤0.1 ng/µg GROβ

Reconstitution and Use

Reconstitute the contents of the vial using 0.2 µm-filtered 4 mM HCl containing 0.1% HSA or BSA to a concentration not less than 10 µg/ml.

Storage

Prior to reconstitution, store at –20 °C for no more than 6 months. After reconstitution, store at 2-8 °C for a maximum of one month. For extended storage, freeze in working aliquots at –70 °C or –20 °C. Repeated freezing and thawing is not recommended.

References

1. Haskill, S., et al., Proc. Natl. Acad. Sci. USA, **87**, 7732 (1995.)
2. Ralph, W., et al., Comput. Appl. Biosci., **3**, 211 (1987).
3. Richmond, A., et al., J. Cell. Biochem., **36**, 185 (1988).
4. Iida, N., et al., Mol. Cell.Biol., **10**, 5596 (1990).
5. Shröeder, J. et al., J. Immunol., **139**, 3474 (1987).

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