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Recombinant Human Epithelial neutrophil-activating protein 78 (CXCL5)

Alternate names: CXCL5, ENA78, LIX

Catalog No.: PA1142

Quantity: 5 µg

Concentration: 1 mg/ml

Species: Human

Source: E. coli, E.coli

Format:
State: Sterile Filtered White lyophilized (freeze-dried) powder.
Purity: ›98% Greater than 95.0% as determined by:
(a) Analysis by RP-HPLC.
(b) Analysis by SDS-PAGE.
Buffer System: Lyophilized from a concentrated solution in water containing no additives.
Endotoxin Level: Less than 0.1 ng/µg (IEU/µg) of Recombinant Human Epithelial neutrophil-activating protein 78.
Dimers: Less than 1% as determined by silver-stained SDS-PAGE gel analysis.
Reconstitution: It is recommended to reconstitute the lyophilized ENA-78 in sterile 18MΩ-cm H2O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

Description:
Recombinant Human ENA-78 produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 74 amino acids. Recombinant Human ENA-78 is purified by proprietary chromatographic techniques.
AA Sequence:
The sequence of the first five N-terminal amino acids was determined and was found to be, Ala- Ala -Val-Leu-Arg.
Biological Activity: The biological activity was determined by measuring the dose dependent mobilization of intracellular calcium (calcium flux) with human neutrophils. Significant calcium mobilization is observed with â?Ą100ng/mL of recombinant human ENA-78. The optimal concentration for each specific application should be determined by an initial dose-response assay.
Molecular weight: 8020 Dalton
Molecular weight: 8 kDa

Add. Information:
Protein quantitation was carried out by two independent methods:
1. UV spectroscopy at 280 nm .
2. Analysis by RP-HPLC, using a calibrated solution of ENA-78 as a Reference Standard.

Storage: Lyophilized ENA-78 although stable at room temperature for 3 weeks, should be stored desiccated below -180C. Upon reconstitution ENA-78 should be stored at 40C between 2-7 days and for future use below -180C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please avoid freeze-thaw cycles.

General Readings:

1. Amoli MM, Ollier WE, Gonzalez-Gay MA. Lack of association of epithelial cell-derived neurophil-activating peptide (ENA)-78 gene polymorphism with susceptibility to biopsy-proven giant cell arteritis. Clin Exp Rheumatol. 2007 Jan-Feb;25(1 Suppl 44):S40. PubMed PMID: 17428364.
2. Nomura S, Ishii K, Kanazawa S, Inami N, Kamitsuji Y, Uoshima N, et al. Role of platelet-derived chemokines (RANTES and ENA-78) after stem cell transplantation. Transpl Immunol. 2006 Apr;15(4):247-53. Epub 2006 Jan 9. PubMed PMID: 16635746.
3. Zineh I, Aquilante CL, Langaee TY, Beitelshees AL, Arant CB, Wessel TR, et al. CXCL5 gene polymorphisms are related to systemic concentrations and leukocyte production of epithelial neutrophil-activating peptide (ENA-78). Cytokine. 2006 Mar 7;33(5):258-63. Epub 2006 Mar 29. PubMed PMID: 16567110.
4. Wunder DM, Mueller MD, Birkhäuser MH, Bersinger NA. Increased ENA-78 in the follicular fluid of patients with endometriosis. Acta Obstet Gynecol Scand. 2006;85(3):336-42. PubMed PMID: 16553183.
5. Nakayama S, Mukae H, Ishii H, Kakugawa T, Sugiyama K, Sakamoto N, et al. Comparison of BALF concentrations of ENA-78 and IP10 in patients with idiopathic pulmonary fibrosis and nonspecific interstitial pneumonia. Respir Med. 2005 Sep;99(9):1145-51. Epub 2005 Mar 25. PubMed PMID: 16085216.
6. Amoli MM, Larijani B, Thomson W, Ollier WE, Gonzalez-Gay MA. Two polymorphisms in the epithelial cell-derived neutrophil-activating peptide (ENA-78) gene. Dis Markers. 2005;21(2):75-7. PubMed PMID: 15920294.

Pictures: PA1142ME0607