Recombinant Human Interleukin 8 (a. a. 1-77) Polypeptide

Human, Antigen (IL8)
Cat. No: DAG316
Lot.No: (See product label)

PDB rendering based on 1IL8

PRODUCT INFORMATION

Product Overview: Recombinant Human IL-8 is a single, non-glycosylated polypeptide chain containing 77 amino acids and having a molecular weight of 8,904 Da. The sequence of the first five N-terminal amino acids was determined to be Ser-Ala-Lys-Glu-Leu. Contains less than 1% dimers and aggregates.
Antigen Description: nterleukin-8 (IL-8) is a chemokine produced by macrophages and other cell types such as epithelial cells. It is also synthesized by endothelial cells, which store IL-8 in their storage vesicles, the Weibel-Palade bodies. In humans, the interleukin-8 protein is encoded by the IL8 gene. There are more receptors of the surface membrane capable to bind IL-8; the most frequently studied types are the G protein coupled serpentine receptors CXCR1 and CXCR2. Expression and affinity to IL-8 is different in the two receptors (CXCR1 > CXCR2). Toll-like receptors are the receptors of the innate immune system.
Form: Purified, Lyophilized. Reconstitute using sterile deionized water to a concentration ≥100ug/ml. Further dilutions can be made in other aqueous buffers.
Source: E. coli
Purification: >98% pure (RP-HPLC and SDS-PAGE). Endotoxin level is less than 0.1ng/ug (IEU/ug). Purified by chromatographic techniques. Product is sterile filtered.
Applications: Specific activity of Human IL-8 determined in chemotaxis of donor PBL neutrophils with threshold concentration corresponding to 25–150ng/ml. Each laboratory should determine an optimum working titer for use in its particular application. Other applications have not been tested but use in such assays should not necessarily be excluded.
Inactivation: Not applicable

PACKAGING

Concentration: 1mg/ml (OD280nm, $E^{0.1\%}$ = 0.85) (prior to lyophilization)
Buffer: Lyophilized from water containing no additives.
Preservative: None
Storage: The lyophilized product, though stable for 3 weeks at room temperature, is best stored at -20°C. After reconstitution, short term (up to 1 week) store at 2–8°C. Long term, add 0.1% HSA or BSA, aliquot and store at -20°C. Avoid multiple freeze/thaw cycles.

GENE INFORMATION

Gene Name: IL8 interleukin 8 [*Homo sapiens*]
Official Symbol: IL8
Synonyms: NAF; GCP1; LECT; LUCT; NAP1; CXCL8; GCP-1; LYNAP; MDNCF; MONAP; NAP-1; interleukin-8; emoctakin; OTTHUMP00000199824; OTTHUMP00000199825; T-cell chemotactic factor; neutrophil-activating peptide 1; chemokine (C-X-C motif) ligand 8; beta-thromboglobulin-like protein; granulocyte chemotactic protein 1; tumor necrosis factor-induced gene 1; alveolar macrophage chemotactic factor I; monocyte-derived neutrophil chemotactic factor; monocyte-derived neutrophil-activating peptide; small inducible cytokine subfamily B, member 8; lymphocyte derived neutrophil activating peptide; lung giant cell carcinoma-derived chemotactic protein; beta endothelial cell-derived neutrophil activating peptide; 3-10C; AMCF-I; K60; SCYB8; b-ENAP; Neutrophil-activating protein 1; Protein 3-10C; interleukin 8
GeneID: 3576
mRNA Refseq: NM_000584
Protein Refseq: NP_000575
MIM: 146930
UniProt ID: P10145
Chromosome Location: 4
Pathway: ATF-2 transcription factor network; Amoebiasis; Chagas disease (American trypanosomiasis); Chemokine signaling pathway; Class A/1 (Rhodopsin-like receptors); Cytokine-cytokine receptor interaction
Function: chemokine activity; interleukin-8 receptor binding; protein binding

REFERENCES

1. Utgaard JO, Jahnsen FL, Bakka A, Brandtzaeg P, Haraldsen G (November 1998). "Rapid secretion of prestored interleukin 8 from Weibel-Palade bodies of microvaascular endothelial cells". J. Exp. Med. 188 (9): 1751–6.
2. Vlahopoulos S, Boldogh I, Casola A, Brasier AR (September 1999). "Nuclear factor-kappaB-dependent induction of interleukin-8 gene expression by tumor necrosis factor alpha: evidence for an antioxidant sensitive activating pathway distinct from nuclear translocation". Blood 94 (6): 1878–89.

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