IP-10 Human E. coli

Product Data Sheet

Type: Recombinant
Source: E. coli
Species: Human
Other names: Interferon-gamma inducible Protein 10kDa, CXCL10

Cat. No.:

RBG10196005	(5 µg)
RBG10196025	(25 µg)
RBG10196100	(100 µg)

Description

IP-10 is a CXC chemokine that signals through the CXCR3 receptor. IP-10 selectively chemoattracts Th1 lymphocytes and monocytes, and inhibits cytokine-stimulated hematopoietic progenitor cell proliferation. Additionally, it is angiostatic and mitogenic for vascular smooth muscle cells. Recombinant Human IP-10 is an 8.6 kDa protein consisting of 77 amino acids, including the four conserved cysteine residues present in CXC chemokines.

Introduction to the Molecule

IP-10 (Interferon-gamma inducible Protein 10kDa) also known as CXCL10, is secreted by several cell types in response to IFNg and LPS. These cell types include monocytes, endothelial cells and fibroblasts.The gene for IP-10 is located on chromosome 4 in a cluster among several other cytokines and encodes a 98 amino acid precursor protein. IP-10 has been attributed to several roles, such as chemoattraction for monocytes and T cells (but not for neutrophils), inhibition of bone marrow colony formation and angiogenesis, promotion of T cells adhesion molecule expression. IP-10 shares a common receptor, CXCR3, with the chemokine MIG, but has been shown to play a distinct role in host defense in infections. IP-10 expression has been associated with HIV infection, is involved in inflammatory skin disease (6) and other allergic diseases; it appears in inflammation of the nervous system and in Alzheimer's disease (astrocytes expressing IP-10 are commonly associated with senile plaques).

Research topic

Cytokines and chemokines and related molecules, Immune Response, Infection and Inflammation

Amino Acid Sequence

VPLSRTVRCT CISISNQPVN PRSLEKLEII PASQFCPRVE IIATMKKKGE KRCLNPESKA IKNLLKAVSK ERSKRSP

Source

E. coli

Purity

98%

Biological Activity

Determined by its ability to chemoattract human T-Lymphocytes using a concentration of 10-50 ng/ml.

Endotoxin

Endotoxin level is <0.1 ng/µg of protein (<1EU/µg).

Reconstitution

Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 mg/ml. Do not vortex. This solution can be stored at 2-8°C for up to 1 week. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C.

Storage, Stability/Shelf Life

-20°C

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