

Human IP-10 ELISA Kit | IP-10 elisa kit

IP-10 (Human) OmniKine ELISA Kit

CATALOG #
AAA315637

REACTIVITY
Human

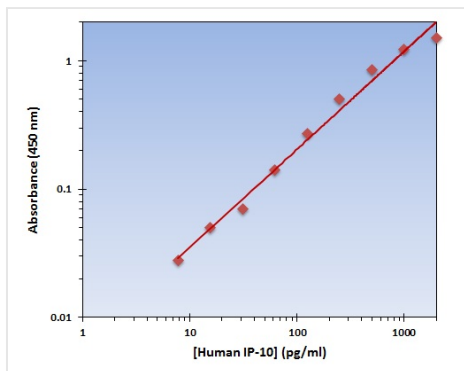
PRODUCT SYNONYMS

IP-10; IP-10 (Human) OmniKine ELISA Kit; C-X-C motif chemokine 10; 10 kDa interferon gamma-induced protein; Gamma-IP10; Small-inducible cytokine B10; INP10; SCYB10; IP-10 elisa kit

PRODUCT SPECIFICATIONS

Reactivity	Human
Specificity	The OmniKine™ Human IP-10 ELISA is capable of recognizing both recombinant and naturally produced Human IP-10 proteins. The antigens listed below were tested at 50 ng/ml and did not exhibit significant cross reactivity or interference.
Form/Format	12 x 8-Well Microstrips
Sequence Length	98
Assay Type	Quantitative Sandwich
Preparation and Storage	Store entire kit at 4 degree C until use.

IMAGES



Application Data

The OmniKine Human IP-10 ELISA Kit allows for the detection and quantification of endogenous levels of natural and/or recombinant Human IP-10 proteins within the range of 8-2000 pg/ml.

ADDITIONAL INFORMATION

Related Product Information for IP-10 elisa kit	Principle of the Assay: The OmniKine™ Human IP-10 ELISA Kit contains the components necessary for quantitative determination of natural orrecombinant Human IP-10 concentrations within any experimental sample including cell lysates, serum and plasma. This particular immunoassay utilizes the quantitative technique of a "Sandwich" Enzyme-Linked Immunosorbent Assay (ELISA) where the target protein (antigen) isbound in a "sandwich" format by the primary capture antibodies coated to each well-bottom and the secondary detection antibodies added subsequently by the investigator. The capture antibodies coated to the bottom of each well are specific for a particular epitope on Human IP-10 while the user-added detection antibodies bind to epitopes on the captured target protein. Amid each step of the procedure, a series of wash steps must be performed to ensure the elimination of non-specific binding between proteins to other proteins or to the solid phase. After incubation and "sandwiching" of the target antigen, a peroxidase enzyme is conjugated to the constant heavy chain of the secondary antibody (either covalently or via Avidin/Streptavidin-Biotin interactions), allowing for a colorimetric reaction to ensue upon substrate addition. When the substrate TMB (3, 3', 5, 5'-Tetramethylbenzidine) is added, the reaction catalyzed by peroxidase yields a blue color that is representative of the antigen concentration. Upon sufficient color development, the reaction can be terminated through addition of Stop Solution (2 N Sulfuric Acid) where the color of the solution will turn yellow. The absorbance of each well can then be read by a spectrophotometer, allowing for generation of a standard curve and subsequent determination of protein concentration. Background/Introduction: Human IP-10, most commonly known as the C-X-C Motif Chemokine 10 or Interferon-gamma Induced Protein 10 is an 8.7 kDa protein consisting of 98 residues after initial expression from the gene CXCL10 at locus 4q21 on chromosome 4. The overall structural composition of IP-10 includes 4 beta strands ranging from 3 to 7 residues each connected by beta turns, followed by a 9 residue helix towards the C-terminus of the cytokine. After post translational processing, the 21 residue signal sequence is removed from the actual 77 residue IP-10 protein via proteolytic cleavage. Within the IP-10 protein, the CXCL-10 (1-73) peptide is produced by proteolytic cleavage after secretion from keratinocytes. IP-10 is known to be a chemokine of the C-X-C subfamily and ligand for the receptor CXCR3. High affinity binding with the cell surface receptor CXCR3 results in pleiotropic effects, including chemotactic stimulation of monocytes and macrophages, natural killer and T-cell migration, as well as modulation of adhesion molecule expression, inhibition of bone marrow colony formation and angiogenesis. IP-10 has been implicated as a key mediator in the Interferon-gamma (IFN-gamma) response as its expression is able to be rapidly increased by a variety of cell types when exposed to IFN-gamma.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	149999382
NCBI GeneID	3627
NCBI Accession #	NP_001556.2
NCBI GenBank Nucleotide #	NM_001565.3
UniProt Accession #	P02778; Q96QJ5
Molecular Weight	10,881 Da
NCBI Official Full Name	C-X-C motif chemokine 10
NCBI Official Synonym Full Names	C-X-C motif chemokine ligand 10
NCBI Official Symbol	CXCL10
NCBI Official Synonym Symbols	C7; IFI10; INP10; IP-10; crg-2; mob-1; SCYB10; gIP-10
NCBI Protein Information	C-X-C motif chemokine 10
UniProt Protein Name	C-X-C motif chemokine 10
UniProt Gene Name	CXCL10
UniProt Synonym Gene Names	INP10; SCYB10; Gamma-IP10; IP-10

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

