

PRODUCT DATA SHEET

Human CXCL10 ELISA Kit

Description

CXCL10, also known as human interferon-inducible protein 10 (IP-10), is a 10 kDa Th1-chemokine in the CXC family. It possesses multifaceted functions through binding with the CXC receptor 3 (CXCR3). CXCL10 plays a significant role in the recruitment of various immune cells, including Th1 cells, dendritic cells, NK cells, $\gamma\delta$ T cells, and macrophages. It is predominantly expressed by neutrophils, leukocytes, monocytes, eosinophils, and non-immune cells such as stromal cells, keratinocytes, epithelial cells, and endothelial cells.

The normal range of CXCL10 in healthy individuals is between 24 pg/mL and 933 pg/mL. Elevated levels of CXCL10 are associated with numerous human diseases and are implicated in infectious diseases, inflammatory and autoimmune disorders, and cancer. It aggravates inflammation and causes tissue damage by directing leukocytes to inflamed tissues.

In biomedical research, CXCL10 is valuable for both diagnostics and therapeutics. Measuring CXCL10 levels aids in diagnosing and monitoring disease progression, while modulating its activity or blocking its interaction with CXCR3 is a promising strategy for developing new therapies for immune-related diseases and cancer.

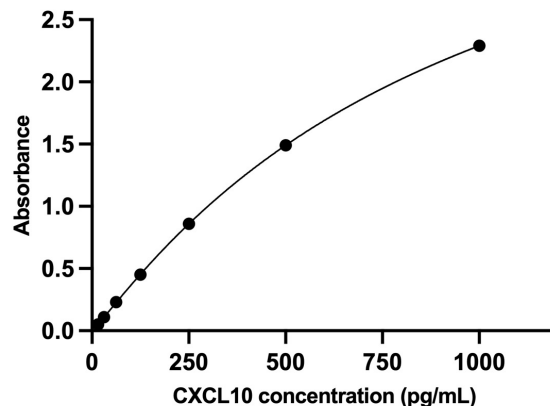
Contents

Pre-coated strip microplate (8X12)	96 wells
10X Wash Buffer	50 mL
1X Assay Diluent	50 mL
1X Detection Diluent	50 mL
Biotinylated anti-Human CXCL10	1 vial
CXCL10 Standard	1 vial
200X HRP-Streptavidin Conjugate	150 μ L
1X One-step TMB Substrate	12 mL
1X Stop Solution	8 mL
Adhesive Plate Covers	1 count

Features

The Human CXCL10 solid-phase sandwich ELISA is designed to quantify the target analyte “sandwiched” between a matched antibody pair. The microplate wells supplied with the kit are pre-coated with a target-specific antibody. Upon adding the samples, standards, or controls, the target is captured by the immobilized antibody and subsequently binds to the next added detector antibody.

A secondary enzyme conjugate binds the target attached detector antibody and a substrate solution reacts with the enzyme-antibody-target complex to develop a measurable colored end-product which correlates to the concentration of target analyte present in the original sample. See manual for more information on the assay procedure.



Characteristics

Protein name	C-X-C motif chemokine ligand 10 (CXCL10)
Alternate names	Interferon gamma-induced protein 10, IP-10, Gamma-IP10, small-inducible cytokine B10, gIP-10
Species reactivity	Human
Assay format	Solid-phase Sandwich ELISA (quantitative)
Sample type	Serum, Plasma, Cell culture supernatant
Sample volume	100 μ L
Assay length	4.5 hrs
Analytical sensitivity	<8 pg/mL
Assay range	15.6 – 1000 pg/mL
Intra-assay CV	<5%
Inter-assay CV	<10%
Recovery (%)	Serum: 97.5 Plasma: 100.9 Cell culture media: 96.9
Detection & Instrument	Colorimetric, Microplate Reader
UniProt ID	(Human) P02778

Validation

Each manufactured lot of this ELISA kit is quality tested for criteria such as sensitivity, specificity, precision, and lot-to-lot consistency. See manual for more information on validation.

Storage

This product should be stored at 2-8°C. Do not freeze. If stored as specified, the ELISA Plates and reagents are stable for at least 12 months.

Canada, Europe, Asia, Pacific and Africa

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Precautions and Disclaimer

For Research Use Only. Not for use in diagnostic procedures.
Not for resale without express authorization. Please consult

the Material Safety Data Sheet available online at
www.cytodiagnosics.com for information regarding hazards
and safe handling procedures.

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