



Human Interleukin 6,IL-6 ELISA KIT

Product Code	CSB-E04638h
Abbreviation	IL6
Protein Biological Process 1	Cytokine
Target Name	interleukin 6 (interferon, beta 2)
Uniprot No.	P05231
Alias	BSF2, HGF, HSF, IFNB2, IL-6, B cell stimulatory factor-2 B-cell differentiation factor CTL differentiation factor OTTHUMP00000158544 hybridoma growth factor interleukin 6 interleukin BSF-2
Product Type	ELISA Kit
Immunogen Species	Homo sapiens (Human)
Protein Biological Process 3	Acute phase
Sample Types	serum, plasma, cell culture supernates, tissue homogenates, urine
Detection Range	7.8 pg/mL-500 pg/mL
Sensitivity	2.453 pg/mL
Assay Time	1-5h
Sample Volume	50-100ul
Detection Wavelength	450 nm
Lead Time	3-5 working days after you place the order, and it takes another 3-5 days for delivery via DHL or FedEx.
Research Area	Immunology
Gene Names	IL6
Tag Info	quantitative
Protein Description	Sandwich

Description

The human IL-6 ELISA kit is suitable for the quantitative determination of human IL-6 in a wide range of sample types, including serum, plasma, cell culture supernates, tissue homogenates, and urine. This assay employs the bi-antibody sandwich technique and enzyme-substrate chromogenic reaction to quantify antigen levels in the sample. The amount of synthesized colored products are positively related to the analyte of interest in the sample. This human IL-6 ELISA kit has been described in up to 143 publications.

IL-6 is rapidly and transiently generated in response to infections and tissue damage, contributing to host defense via the induction of acute-phase responses, hematopoiesis, and immune reactions. In addition to regulating



immune and inflammatory reactions, IL-6 also plays an important role in hematopoiesis, metabolism, and organ development. IL-6 binding to its receptor IL-6R ligates to gp130, initiating a downstream signal cascade, including JAK/STAT3 and JAK-SHP-2-MAPK pathways. Dysregulated IL-6 has been associated with the pathogenesis of autoimmune and inflammatory diseases, metabolic abnormalities, and cancer. Targeting IL-6 has shown to be potential for the treatment of various immune-mediated diseases.

Target Details

This gene encodes a cytokine that functions in inflammation and the maturation of B cells. The protein is primarily produced at sites of acute and chronic inflammation, where it is secreted into the serum and induces a transcriptional inflammatory response through interleukin 6 receptor, alpha. The functioning of this gene is implicated in a wide variety of inflammation-associated disease states, including susceptibility to diabetes mellitus and systemic juvenile rheumatoid arthritis.

Product Precision

Intra-assay Precision (Precision within an assay): CV%<8%

Three samples of known concentration were tested twenty times on one plate to assess.

Inter-assay Precision (Precision between assays): CV%<10%

Three samples of known concentration were tested in twenty assays to assess.

	Intra-Assay Precision			Inter-Assay Precision		
Sample	1	2	3	1	2	3
n	20	20	20	20	20	20
Mean(pg/ml)	66.320	65.154	67.219	65.841	60.110	65.108
SD	0.055	0.057	0.057	0.043	0.046	0.021
CV(%)	8.289	8.687	8.507	6.568	7.371	3.253

Linearity

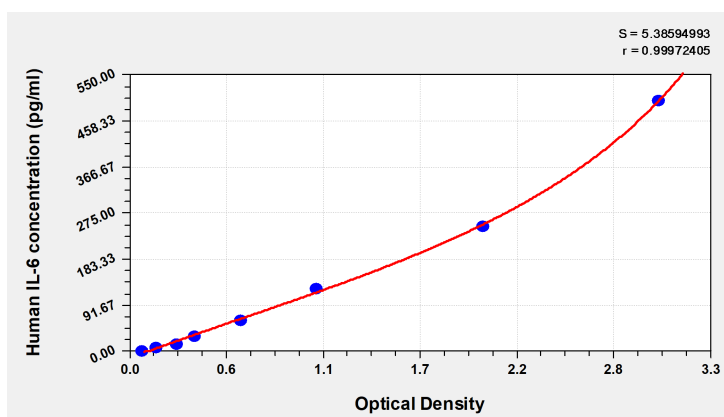
To assess the linearity of the assay, samples were spiked with high concentrations of human IL-6 in various matrices and diluted with the Sample Diluent to produce samples with values within the dynamic range of the assay.



	Sample	Serum(n=4)
1:1	Average %	95
	Range %	80-100
1:2	Average %	97
	Range %	91-110
1:4	Average %	93
	Range %	85-95
1:8	Average %	95
	Range %	90-100

Typical

These standard curves are provided for demonstration only. A standard curve should be generated for each set of samples assayed.



pg/ml	OD1	OD2	Average	corrected
0	0.076	0.080	0.078	
7.8	0.154	0.158	0.156	0.078
15.6	0.271	0.275	0.273	0.195
31.2	0.389	0.377	0.373	0.295
62.5	0.640	0.642	0.641	0.563
125	1.002	1.135	1.069	0.991
250	2.075	2.125	2.100	2.022
500	3.020	3.004	3.012	2.934

Msds

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