



Human Interleukin 21, IL-21 ELISA Kit

Product Code	CSB-E11707h
Abbreviation	IL21
Target Name	interleukin 21
Uniprot No.	Q9HBE4
Alias	IL-21, Za11, interleukin-21 isoform
Product Type	ELISA Kit
Immunogen Species	Homo sapiens (Human)
Sample Types	serum, plasma, tissue homogenates
Detection Range	3.12 pg/mL-200 pg/mL
Sensitivity	0.78 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	IL21
Tag Info	quantitative
Protein Description	Sandwich

Description

This human IL-21 ELISA kit employs the quantitative sandwich enzyme immunoassay technique to measure the levels of human IL-21 in multiple samples, including serum, plasma, or tissue homogenates. It also uses the enzyme-substrate chromogenic reaction to visualize and analyze the analyte levels through the color intensity. The intensity of the colored product is in direct proportion to the IL-21 levels in the sample and is measured at 450 nm through a microplate reader.

IL-21 plays multiple biologic roles, including maintenance and function of CD8⁺ memory T cells and natural killer cells, as well as promoting the generation of Th17 cells in the mouse. IL-21 also promotes B-cell activation, differentiation, or death during humoral immune responses. IL-21 signals through IL-21R, activating the JAK1/3-STAT signaling pathway that initiates a gene transcription profile such as Gzma, Gzmb, Il10, Eomes, and Rorgt. Furthermore, elevated IL-21 generation is characteristic of certain autoimmune diseases and is likely to contribute to autoantibody production as well as pathologic features of autoimmune disease. In contrast, IL-21 may function as a co-adjuvant to enhance antibody responses and thereby facilitate host defense to malignancies



and infectious diseases.

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.

Linearity

To assess the linearity of the assay, samples were spiked with high concentrations of human IL-21 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 %	90
	Range %	85-96
1:2	Average %	92
	Range %	87-99
1:4	Average %	87
	Range %	84-92
1:8	Average %	94
	Range %	87-100

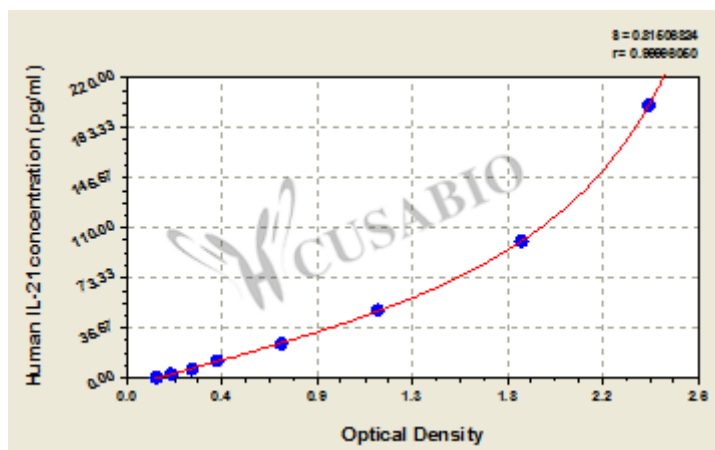
Recovery

The recovery of human IL-21 spiked to levels throughout the range of the assay in various matrices was evaluated. Samples were diluted prior to assay as directed in the Sample Preparation section.

Sample Type	Average % Recovery	Range
Serum (n=5)	98	94-102
EDTA plasma (n=4)	101	85-109

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
200	2.445	2.345	2.395	2.250
100	1.864	1.764	1.814	1.669
50	1.162	1.151	1.157	1.012
25	0.723	0.713	0.718	0.573
12.5	0.432	0.422	0.427	0.282
6.25	0.315	0.305	0.310	0.165
3.12	0.222	0.212	0.217	0.072
0	0.145	0.144	0.145	?

Msds

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