Human Soluble Interleukin-7 Receptor,sIL-7R ELISA Kit

Product Code	CSB-E14020h
Abbreviation	IL7R
Target Name	interleukin 7 receptor
Uniprot No.	P16871
Alias	CD127, CDW127, IL-7R-alpha, IL7RA, ILRA, CD127 antigen|interleukin 7 receptor alpha chain|interleukin 7 receptor isoform H5-6
Product Type	ELISA Kit
Immunogen Species	Homo sapiens (Human)
Sample Types	serum, plasma, tissue homogenates
Detection Range	0.78 ng/mL-50 ng/mL
Sensitivity	0.195 ng/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
Quality Control	A microplate reader capable of measuring absorbance at 450 nm, with the correction wavelength set at 540 nm or 570 nm. An incubator can provide stable incubation conditions up to 37°C±5°C. Centrifuge Vortex Squirt bottle, manifold dispenser, or automated microplate washer Absorbent paper for blotting the microtiter plate 50-300ul multi-channel micropipette Pipette tips Single-channel micropipette with different ranges 100ml and 500ml graduated cylinders Deionized or distilled water Timer Test tubes for dilution
Gene Names	IL7R
Tag Info	quantitative
Protein Description	Sandwich
Component	A micro ELISA plate --- The 96-well plate has been pre-coated with an anti-

human sIL-7R antibody. This dismountable microplate can be divided into 12 x 8 strip plates.
Two vials lyophilized standard ---Dilute a bottle of the standard at dilution series, read the OD values, and then draw a standard curve.
One vial Biotin-labeled sIL-7R antibody (100 x concentrate) (120 µl/bottle) ---Act as the detection antibody.
One vial HRP-avidin (100 x concentrate) (120 µl/bottle) ---Bind to the detection antibody and react with the TMB substrate to make the solution chromogenic.
One vial Biotin-antibody Diluent (15 ml/bottle) ---Dilute the Biotin-antibody.
One vial HRP-avidin Diluent (15 ml/bottle) ---Dilute the HRP-avidin solution.
One vial Sample Diluent (50 ml/bottle)---Dilute the sample to an appropriate concentration.
One vial Wash Buffer (25 x concentrate) (20 ml/bottle) ---Wash away unbound or free substances.
One vial TMB Substrate (10 ml/bottle) ---Act as the chromogenic agent. TMB interacts with HRP, eliciting the solution turns blue.
One vial Stop Solution (10 ml/bottle) ---Stop the color reaction. The solution color immediately turns from blue to yellow.
Four Adhesive Strips (For 96 wells) --- Cover the microplate when incubation.
An instruction manual

Description

This Human IL7R ELISA Kit was designed for the quantitative measurement of Human IL7R protein in serum, plasma, tissue homogenates. It is a Sandwich ELISA kit, its detection range is 0.78 ng/mL-50 ng/mL and the sensitivity is 0.195 ng/mL .

Target Details

This protein is a receptor for interleukine 7 (IL7). The function of this receptor requires the interleukin 2 receptor, gamma chain (IL2RG), which is a common gamma chain shared by the receptors of various cytokines, including interleukine 2, 4, 7, 9, and 15. This protein has been shown to play a critical role in the V(D)J recombination during lymphocyte development. This protein is also found to control the accessibility of the TCR gamma locus by STAT5 and histone acetylation. Knockout studies in mice suggested that blocking apoptosis is an essential function of this protein during differentiation and activation of T lymphocytes. The functional defects in this protein may be associated with the pathogenesis of the severe combined immunodeficiency (SCID).

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 sIL-7R 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 %	87-93

1:2	Average %	103
	Range %	99-105
1:4	Average %	90
	Range %	85-93
1:8	Average %	99
	Range %	94-103

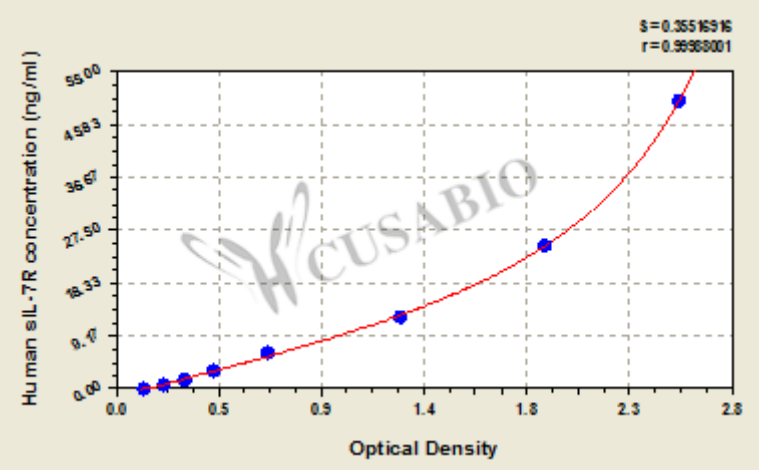
Recovery

The recovery of human sIL-7R 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)	93	90-95
EDTA plasma (n=4)	96	92-98

Typical

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



ng/ml	OD1	OD2	Average	Corrected
50	2.525	2.500	2.513	2.376
25	1.940	1.894	1.917	1.780
12.5	1.287	1.267	1.277	1.140
6.25	0.701	0.678	0.690	0.553
3.12	0.444	0.448	0.446	0.309
1.56	0.323	0.314	0.319	0.182
0.78	0.231	0.222	0.227	0.090
0	0.139	0.135	0.137	?

Msds

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