



Human soluble cluster of differentiation 14,sCD14

ELISA Kit

Product Code	CSB-E13199h
Abbreviation	CD14
Protein Biological Process 1	others
Target Name	CD14 molecule
Uniprot No.	P08571
Alias	CD14 antigen monocyte differentiation antigen CD14
Product Type	ELISA Kit
Immunogen Species	Homo sapiens (Human)
Protein Biological Process 3	Immunity
Sample Types	serum, plasma, cell culture supernates, tissue homogenates, urine
Detection Range	0.234 ng/mL-15 ng/mL
Sensitivity	0.229 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	CD14



Tag Info	quantitative
Protein Description	Sandwich
Component	A micro ELISA plate ---The 96-well plate has been pre-coated with an anti-human CD14 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 CD14 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 ELISA kit is used for quantitative detection of a human soluble cluster of differentiation 14 (sCD14), establishing a normal detection range and validation of antibody array results. CD14 is a pattern-recognition receptor and exists in two different forms: GPI-anchored membrane CD14 (mCD14) and liver-derived serum soluble CD14. sCD14 is an acute-phase protein upregulated significantly during sepsis but is also found in normal serum at microgram concentrations. CD14 plays an important role in the phagocytic clearance of apoptotic cells and the reactivation and immune recognition of microbial cell wall components from Gran-positive and Gram-negative bacteria. sCD14 can transfer the LPS to the TLR4/MD-2 complex, eliciting a cascade of inflammatory signaling and TLR4 endocytosis. Based on the Sandwich-ELISA principle and enzyme-substrate chromogenic reaction property, the users can measure the content of human CD14 in serum, plasma, cell culture supernates, tissue homogenates, or urine. This human CD14 ELISA kit is quality tested with high specificity, excellent sensitivity, the precision of less than 10%, good linearity, and high recovery. Click the product instructions for more validation information.
Target Details	CD14 is a surface protein preferentially expressed on monocytes/macrophages. It binds lipopolysaccharide binding protein and recently has been shown to bind apoptotic cells. Alternative splicing results in multiple transcript variants encoding the same isoform.



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(ng/ml)	1.716	1.761	1.708	1.786	1.730	1.807
SD	0.066	0.045	0.078	0.084	0.106	0.098
CV(%)	5.479	3.687	6.492	6.833	8.765	7.924

Linearity

To assess the linearity of the assay, samples were spiked with high concentrations of human sCD14 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)
1:20	Average %	90
	Range %	82-93
1:40	Average %	96
	Range %	91-101
1:80	Average %	93
	Range %	85-97
1:160	Average %	91
	Range %	87-99

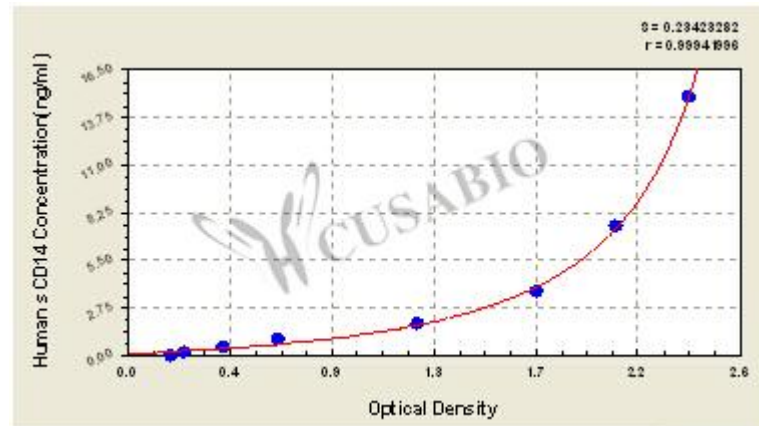
	Sample	Urine (n=4)
1:1	Average %	95
	Range %	88-102
1:2	Average %	90
	Range %	85-94
1:4	Average %	97
	Range %	92-115
1:8	Average %	89
	Range %	82-93

	Sample	Cell Culture Supernates (n=4)
1:1	Average %	99
	Range %	93-112
1:2	Average %	87
	Range %	82-93
1:4	Average %	98
	Range %	90-114
1:8	Average %	90
	Range %	87-96



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
0	0.197	0.196	0.197	
0.234	0.256	0.252	0.254	0.057
0.469	0.412	0.414	0.413	0.216
0.938	0.645	0.643	0.644	0.447
1.875	1.229	1.223	1.226	1.029
3.75	1.728	1.722	1.725	1.528
7.5	2.059	2.053	2.056	1.859
15	2.359	2.361	2.360	2.163

Msds

{
 "0": {
 "fileurl": "https://www.cusabio.com/uploadfile/msds/MSDS CSB-E13199h.pdf",
 "filename": "MSDS"
 }
}