



Human Leukocyte surface antigen CD47(CD47)

ELISA kit

Product Code	CSB-EL004940HU
Abbreviation	CD47
Protein Biological Process 1	Cell Adhesion
Target Name	CD47 molecule
Uniprot No.	Q08722
Alias	IAP, MER6, OA3, CD47 antigen CD47 antigen (Rh-related antigen, integrin-associated signal transducer) CD47 glycoprotein Rh-related antigen antigen identified by monoclonal antibody 1D8 antigenic sur
Product Type	ELISA Kit
Immunogen Species	Homo sapiens (Human)
Protein Biological Process 3	Cell adhesion
Sample Types	serum, plasma, urine, 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	CD47
Tag Info	quantitative
Protein Description	Sandwich

Description

The product CSB-EL004940HU is a sandwich ELISA kit developed to measure concentrations of human CD47 in serum, plasma, urine, or tissue homogenates. This assay uses the sandwich enzyme immunoassay technique in combination with the enzyme-substrate chromogenic reaction to quantify the analyte in the sample. The color develops positively to the amount of CD47 in samples. The color intensity is measured at 450 nm via a microplate reader.

CD47 is a heavily glycosylated cell surface protein that regulates cellular phagocytosis by macrophages, transmigration of neutrophils, and activation of



dendritic cells, T cells, and B cells through the interaction with its ligands including TSP-1, SIRP α , integrins, and SHPS-1. It plays an essential role in various cellular functions including proliferation, apoptosis, adhesion, migration, phagocytosis, and numerous immune responses. CD47 is overexpressed on the surface of many types of cancer cells. Ample studies have confirmed that high expression of CD47 aids many types of cancer to escape from the immune system. In many cancer types, CD47-SIRP α enables the escape of these cancer cells from macrophage-mediated phagocytosis.

Target Details

This gene encodes a membrane protein, which is involved in the increase in intracellular calcium concentration that occurs upon cell adhesion to extracellular matrix. The encoded protein is also a receptor for the C-terminal cell binding domain of thrombospondin, and it may play a role in membrane transport and signal transduction. This gene has broad tissue distribution, and is reduced in expression on Rh erythrocytes. Four alternatively spliced transcript variants encoding distinct isoforms have been found for this gene.

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 CD47 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 %	96
	Range %	90-101
1:2	Average %	106
	Range %	102-109
1:4	Average %	94
	Range %	90-98
1:8	Average %	88
	Range %	85-94

Recovery

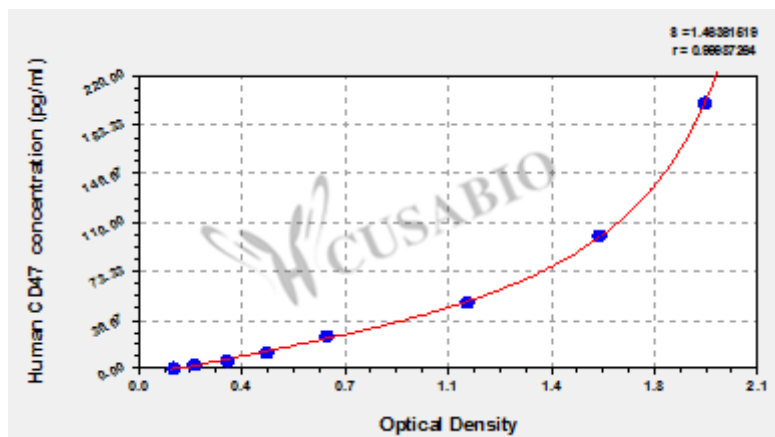
The recovery of human CD47 spiked to levels throughout the range of the assay in various matrices was evaluated. Samples were diluted prior to assay as directed in the Sample Preparation section.

Sample Type	Average % Recovery	Range
Serum (n=5)	103	99-106
EDTA plasma (n=4)	93	91-95

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	1.941	1.925	1.933	1.802
100	1.640	1.519	1.580	1.449
50	1.122	1.132	1.127	0.996
25	0.674	0.624	0.649	0.518
12.5	0.441	0.450	0.446	0.315
6.25	0.301	0.327	0.314	0.183
3.12	0.203	0.194	0.199	0.068
0	0.133	0.128	0.131	?

Msds

{ "0": { "fileurl": "https://www.cusabio.com/uploadfile/msds/MSDS CSB-EL004940HU.pdf", "filename": "MSDS" } }