



Human Cluster of Differentiation 68(CD68) ELISA kit

Product Code	CSB-E15979h
Abbreviation	CD68
Target Name	CD68 molecule
Uniprot No.	P34810
Alias	DKFZp686M18236, GP110, SCARD1, CD68 antigen macrophage antigen CD68 macroscialin scavenger receptor class D, member 1
Product Type	ELISA Kit
Immunogen Species	Homo sapiens (Human)
Sample Types	serum, plasma, tissue homogenates
Detection Range	15.6 pg/mL-1000 pg/mL
Sensitivity	3.9 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	CD68
Tag Info	quantitative
Protein Description	Sandwich

Description

The product CSB-E15979h is a sandwich ELISA kit developed to measure concentrations of human CD68 in serum, plasma, 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 CD68 in samples. The color intensity is measured at 450 nm via a microplate reader.

CD68 is predominantly expressed in late endosomes and lysosomes of macrophages and is widely considered to be a specific biomarker for macrophages/monocytes. Overexpression of CD68 is indicative of macrophage/monocyte dysfunction and hyperproliferation. Furthermore, CD68 is identified to be a useful biomarker of rheumatoid arthritis and Hodgkin's lymphoma. CD68 alone or in combination with other cell markers of tumor-associated macrophages showed a good predictive value as a prognostic marker of cancer patient survival.



Target Details

This gene encodes a 110-kD transmembrane glycoprotein that is highly expressed by human monocytes and tissue macrophages. It is a member of the lysosomal/endosomal-associated membrane glycoprotein (LAMP) family. The protein primarily localizes to lysosomes and endosomes with a smaller fraction circulating to the cell surface. It is a type I integral membrane protein with a heavily glycosylated extracellular domain and binds to tissue- and organ-specific lectins or selectins. The protein is also a member of the scavenger receptor family. Scavenger receptors typically function to clear cellular debris, promote phagocytosis, and mediate the recruitment and activation of macrophages. Alternative splicing results in multiple transcripts encoding different isoforms.

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 CD68 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 %	85-95
1:2	Average %	97
	Range %	91-105
1:4	Average %	98
	Range %	90-104
1:8	Average %	93
	Range %	86-98

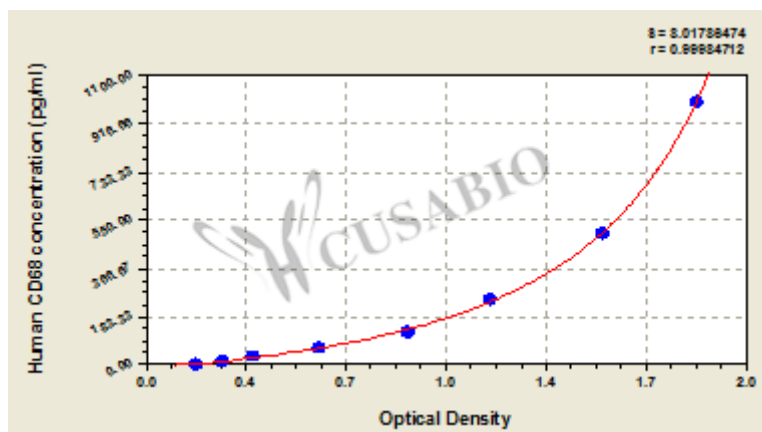
Recovery

The recovery of human CD68 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)	95	89-98
EDTA plasma (n=4)	92	85-99

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
1000	1.859	1.893	1.876	1.665
500	1.556	1.567	1.562	1.351
250	1.179	1.198	1.189	0.978
125	0.880	0.951	0.916	0.705
62.5	0.613	0.623	0.618	0.407
31.2	0.390	0.412	0.401	0.190
15.6	0.293	0.304	0.299	0.088
0	0.210	0.211	0.211	?

Msds

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