Mouse Vascular cell adhesion molecule 1,VCAM-1 ELISA kit

Product Code	CSB-E04754m
Abbreviation	VCAM1
Protein Biological Process 1	Cardiovascular
Target Name	vascular cell adhesion molecule 1
Uniprot No.	P29533
Alias	CD106, DKFZp779G2333, INCAM-100, MGC99561, CD106 antigen
Product Type	ELISA Kit
Immunogen Species	Mus musculus (Mouse)
Protein Biological Process 3	Cell adhesion
Sample Types	serum, plasma, cell culture supernates, tissue homogenates
Detection Range	39.062 pg/mL-2500 pg/mL
Sensitivity	29.649 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	Cardiovascular
Gene Names	Vcam1
Tag Info	quantitative
Protein Description	Sandwich
Description	This mouse VCAM1 ELISA kit employs the quantitative sandwich enzyme immunoassay technique to measure the levels of mouse VCAM1 in the serum, plasma, cell culture supernates, or tissue homogenates. Antibody specific for VCAM1 has been pre-coated onto the microplate. Standards and samples are pipetted into the wells and any VCAM1 present is bound by the immobilized antibody. After removing any unbound substances, a biotin-conjugated VCAM1 antibody is added to the wells. After washing, avidin conjugated HRP is added to the wells, forming an antibody-antigen-enzyme-labeled antibody complex. Following a wash to remove any unbound HRP-avidin, the TMB substrate solution is added to the wells, and the color develops into blue. The color changes from blue to yellow after the addition of stop solution into the wells. The

color intensity is in proportion to the amount of VCAM1 bound in the initial step.

VCAM1 is inducibly and mainly expressed in endothelial cells. As a cell adhesion molecule, VCAM1 contributes to modulating inflammation-related vascular adhesion and the transendothelial migration of leukocytes, such as macrophages and T cells. VCAM1 is closely linked to the occurrence and development of inflammatory diseases, including rheumatoid arthritis, asthma, and transplant rejection. Many studies have shown that VCAM1 is expressed in different cancer types such as breast, renal, and gastric cancers. High expression of VCAM1 has been found in breast cancer and gastric cancer and is associated with tumor angiogenesis and metastasis.

Target Details

This gene is a member of the Ig superfamily and encodes a cell surface sialoglycoprotein expressed by cytokine-activated endothelium. This type I membrane protein mediates leukocyte-endothelial cell adhesion and signal transduction, and may play a role in the development of artherosclerosis and rheumatoid arthritis. Two alternatively spliced transcripts encoding different isoforms have been described 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.

	Intra-Assay Precision			Inter-Assay Precision		
Sample	1	2	3	1	2	3
n	20	20	20	20	20	20
Mean(pg/ml)	313.231	311.675	314.826	319.994	308.615	304.532
SD	0.025	0.031	0.026	0.039	0.028	0.037
CV(%)	5.721	7.122	5.926	8.775	6.483	8.657

Linearity

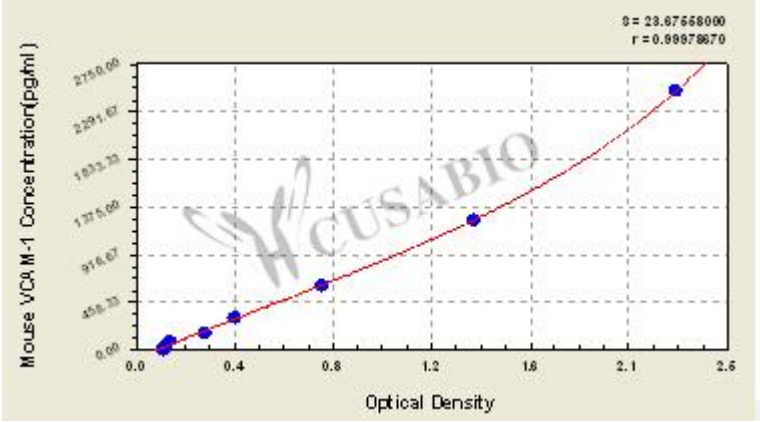
To assess the linearity of the assay, samples were spiked with high concentrations of mouse VCAM-1/CD106 in various matrices and diluted with the Sample Diluent to produce samples with values within the dynamic range of the assay.

	Sample	Serum(n=4)
1:100	Average %	87
	Range %	81-93
1:200	Average %	92
	Range %	84-100
1:400	Average %	91
	Range %	84-98
1:800	Average %	95
	Range %	90-100

	Sample	Cell Culture Supernates
1:1	Average %	86
	Range %	82-90
1:2	Average %	98
	Range %	84-112
1:4	Average %	95
	Range %	88-102
1:8	Average %	96
	Range %	90-102

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
0	0.121	0.124	0.123	0
39.062	0.131	0.132	0.132	0.009
78.125	0.149	0.154	0.152	0.029
156.25	0.301	0.286	0.294	0.171
312.5	0.428	0.413	0.421	0.298
625	0.807	0.752	0.780	0.657
1250	1.487	1.328	1.408	1.285
2500	2.189	2.303	2.246	2.123

Msds

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