



Human S100 calcium binding protein A9/calgranulin B,S100A9 ELISA Kit

Product Code	CSB-E11834h
Protein Biological Process 2	chemokine
Abbreviation	S100A9
Protein Biological Process 1	Immunity
Target Name	S100 calcium binding protein A9
Uniprot No.	P06702
Alias	60B8AG, CAGB, CFAG, CGLB, L1AG, LIAG, MAC387, MIF, MRP14, NIF, P14, S100 calcium-binding protein A9 S100 calcium-binding protein A9 (calgranulin B) calgranulin B
Product Type	ELISA Kit
Immunogen Species	Homo sapiens (Human)
Protein Biological Process 3	Chemotaxis
Sample Types	serum, plasma, tissue homogenates
Detection Range	4.69 ng/mL-300 ng/mL
Sensitivity	1.17 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
Gene Names	S100A9
Tag Info	quantitative
Protein Description	Sandwich

Description

This human S100A9 ELISA Kit is suitable for qualitatively determining human concentrations in serum, plasma, and tissue homogenates in vitro. S100A9 is a calcium-binding protein that can be found in cells of myeloid origin, such as monocytes, neutrophils, and dendritic cells. After secretion, S100A9 acts as a chemoattractant to recruit inflammatory cells into the surrounding microenvironment. Secreted S100A9 protein plays a role in creating a favorable



environment for cancer growth. It was indicated that myeloid cell-producing S100A9 protein within primary cancers and metastatic sites promotes the accumulation of more myeloid cells, which facilitates the regulation of tumor progression and premetastatic niche formation at metastatic sites. S100A9 has been detected in infiltrating macrophages in rheumatoid arthritis and other inflammatory conditions.

This kit uses the quantitative sandwich-based enzyme immunoassay technique to measure the amount of human S100A9 in the sample. Standards and samples are respectively added to the microplate wells pre-coated with an anti-human S100A9 antibody. Biotin-labeled S100A9 antibody, HRP-avidin, and TMB substrate are piped into the microplate in turn. The capture antibody pre-coated on the plate captures the S100A9 in the human samples. S100A9 binds to the biotinylated anti-S100A9 human monoclonal antibody. And the biotin on the biotinylated anti-S100A9 human monoclonal antibody binds to the avidin on the enzyme label, forming immune complexes. The color renders blue after the addition of the TMB substrate. The addition of the stop solution into the wells immediately turns the blue into yellow. The concentration of S100A9 in the samples is directly proportional to OD (450nm). Each manufactured lot of this ELISA kit was quality tested for criteria such as sensitivity, specificity, precision, linearity, and lot-to-lot consistency.

Target Details

This protein is a member of the S100 family of proteins containing 2 EF-hand calcium-binding motifs. S100 proteins are localized in the cytoplasm and/or nucleus of a wide range of cells, and involved in the regulation of a number of cellular processes such as cell cycle progression and differentiation. S100 genes include at least 13 members which are located as a cluster on chromosome 1q21. This protein may function in the inhibition of casein kinase and altered expression of this protein is associated with the disease cystic fibrosis.

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 S100A9 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)
	Average %	100
1:1	Range %	95-105
	Average %	99
1:2	Range %	94-102
	Average %	94
1:4	Range %	90-99



1:8	Average %	95
	Range %	88-98

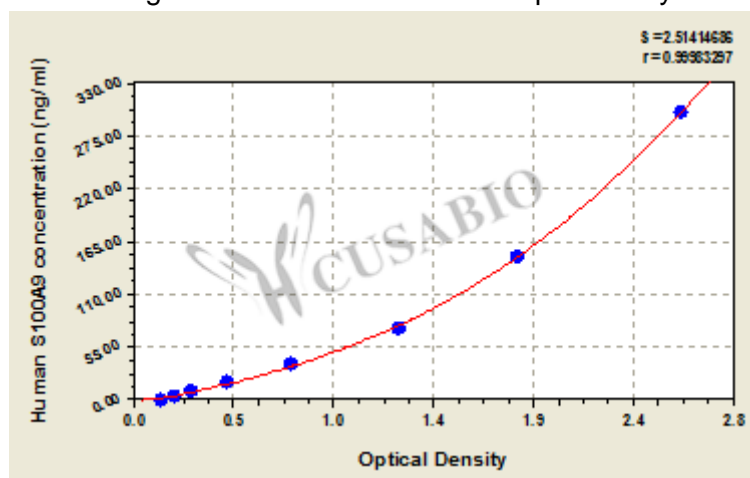
Recovery

The recovery of human S100A9 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)	90	86-95
EDTA plasma (n=4)	96	92-99

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
300	2.615	2.556	2.586	2.445
150	1.841	1.784	1.813	1.672
75	1.263	1.251	1.257	1.116
37.5	0.757	0.739	0.748	0.607
18.75	0.461	0.445	0.453	0.312
9.38	0.288	0.273	0.281	0.140
4.69	0.207	0.198	0.203	0.062
0	0.142	0.140	0.141	?

Msds

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