Human Integrin αM,ITG/CD11b ELISA Kit

Product Code	CSB-E11638h
Abbreviation	ITGAM
Protein Biological Process 1	Cell Adhesion
Target Name	integrin, alpha M (complement component 3 receptor 3 subunit)
Uniprot No.	P11215
Alias	CD11B, CR3A, MAC-1, MAC1A, MGC117044, MO1A, SLEB6, antigen CD11b (p170)|integrin alpha M|macrophage antigen alpha polypeptide|neutrophil adherence receptor alpha-M subunit
Product Type	ELISA Kit
Immunogen Species	Homo sapiens (Human)
Protein Biological Process 3	Cell adhesion
Sample Types	serum, plasma, tissue homogenates
Detection Range	0.78 ng/mL-50 ng/mL
Sensitivity	0.195 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	Signal Transduction
Gene Names	ITGAM
Tag Info	quantitative
Protein Description	Sandwich

Description

This human ITGAM ELISA kit employs the quantitative sandwich enzyme immunoassay technique to measure the levels of human ITGAM in multiple samples, including serum, plasma, or tissue homogenates. It also uses the enzyme-substrate chromogenic reaction to visualize and analyze the analyte levels through the color intensity. The intensity of the colored product is in direct proportion to the ITGAM levels in the sample and is measured at 450 nm through a microplate reader.

ITGAM is the encoding gene for CD11b, highly expressed on the surface of innate immune cells, including macrophages and neutrophils, which together with CD18, form Mac-1 or CR3, a protein that mediates leukocyte adhesion,

migration, and phagocytosis in different cells including neutrophils, monocytes, macrophages, and dendritic cells. CD11b also contributes to the phagocytosis of opsonized particles, including apoptotic cells and the immune complex. It has consistently been associated with susceptibility to systemic lupus erythematosus (SLE).

Target Details

This gene encodes the integrin alpha M chain. Integrins are heterodimeric integral membrane proteins composed of an alpha chain and a beta chain. This I-domain containing alpha integrin combines with the beta 2 chain (ITGB2) to form a leukocyte-specific integrin referred to as macrophage receptor 1 (Mac-1), or inactivated-C3b (iC3b) receptor 3 (CR3). The alpha M beta 2 integrin is important in the adherence of neutrophils and monocytes to stimulated endothelium, and also in the phagocytosis of complement coated particles. Multiple transcript variants encoding different 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 ITG/CD11b 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 %	100
	Range %	95-104
1:2	Average %	98
	Range %	94-102
1:4	Average %	92
	Range %	87-98
1:8	Average %	89
	Range %	85-96

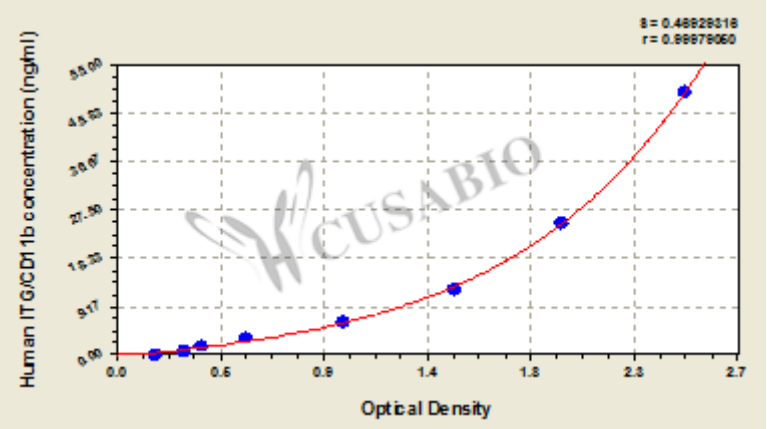
Recovery

The recovery of human ITG/CD11b 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)	92	89-94
EDTA plasma (n=4)	96	92-102

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
50	2.439	2.569	2.504	2.320
25	1.933	1.987	1.960	1.776
12.5	1.485	1.498	1.492	1.308
6.25	0.999	1.009	1.004	0.820
3.12	0.575	0.597	0.586	0.402
1.56	0.394	0.374	0.384	0.200
0.78	0.308	0.316	0.312	0.128
0	0.183	0.185	0.184	?

Msds

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