

### Mouse VCAM1 ELISA Kit (CD106) ab201278

Recombinant SimpleStep ELISA<sup>®</sup>

[6 References](#) [7 Images](#)

#### Overview

**Product name** Mouse VCAM1 ELISA Kit (CD106)

**Detection method** Colorimetric

**Precision**

Intra-assay

Sample	n	Mean	SD	CV%
Overall	8			4.3%

Inter-assay

Sample	n	Mean	SD	CV%
Overall	3			5.6%

**Sample type**

Cell culture supernatant, Serum, Cell culture extracts, Tissue Extracts, Hep Plasma, EDTA Plasma, Cit plasma

**Assay type**

Sandwich (quantitative)

**Sensitivity**

5.59 pg/ml

**Range**

46.9 pg/ml - 3000 pg/ml

**Recovery**

Sample specific recovery

Sample type	Average %	Range
Serum	107	104% - 109%
Cell culture media	87	86% - 88%
Hep Plasma	108	107% - 108%
EDTA Plasma	109	106% - 111%
Cit plasma	111	109% - 113%

**Assay time**

1h 30m

**Assay duration** One step assay

**Species reactivity** **Reacts with:** Mouse  
**Does not react with:** Goat, Cow, Pig

**Product overview** Mouse VCAM1 ELISA Kit (CD106) (ab201278) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of VCAM1 (CD106) protein in cell culture extracts, cell culture supernatant, cit plasma, edta plasma, hep plasma, serum, and tissue extracts. It uses our proprietary SimpleStep ELISA® technology. Quantitate Mouse VCAM1 (CD106) with 5.59 pg/ml sensitivity.

SimpleStep ELISA® technology employs capture antibodies conjugated to an affinity tag that is recognized by the monoclonal antibody used to coat our SimpleStep ELISA® plates. This approach to sandwich ELISA allows the formation of the antibody-analyte sandwich complex in a single step, significantly reducing assay time. See the SimpleStep ELISA® protocol summary in the image section for further details. Our SimpleStep ELISA® technology provides several benefits:

- Single-wash protocol reduces assay time to 90 minutes or less
- High sensitivity, specificity and reproducibility from superior antibodies
- Fully validated in biological samples
- 96-wells plate breakable into 12 x 8 wells strips

A 384-well SimpleStep ELISA® microplate (**ab203359**) is available to use as an alternative to the 96-well microplate provided with SimpleStep ELISA® kits.

**Notes** VCAM1 is important in cell-cell recognition, and appears to function in leukocyte-endothelial cell adhesion. It interacts with integrin alpha-4/beta-1 (ITGA4/ITGB1) on leukocytes, and mediates both adhesion and signal transduction. The VCAM1/ITGA4/ITGB1 interaction may play a pathophysiologic role both in immune responses and in leukocyte emigration to sites of inflammation.

Abcam has not and does not intend to apply for the REACH Authorisation of customers' uses of products that contain European Authorisation list (Annex XIV) substances. It is the responsibility of our customers to check the necessity of application of REACH Authorisation, and any other relevant authorisations, for their intended uses.

**Platform** Microplate (12 x 8 well strips)

## Properties

**Storage instructions** Store at +4°C. Please refer to protocols.

Components	1 x 96 tests
10X Mouse VCAM1 (CD106) Capture Antibody	1 x 600µl
10X Mouse VCAM1 (CD106) Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml
50X Cell Extraction Enhancer Solution (ab193971)	1 x 1ml

Components	1 x 96 tests
5X Cell Extraction Buffer PTR (ab193970)	1 x 10ml
Antibody Diluent CP	1 x 6ml
Mouse VCAM1 (CD106) Lyophilized Recombinant Protein	2 vials
Plate Seals	1 unit
Sample Diluent NS (ab193972)	1 x 50ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit
Stop Solution	1 x 12ml
TMB Development Solution	1 x 12ml

**Function**

Important in cell-cell recognition. Appears to function in leukocyte-endothelial cell adhesion. Interacts with the beta-1 integrin VLA4 on leukocytes, and mediates both adhesion and signal transduction. The VCAM1/VLA4 interaction may play a pathophysiologic role both in immune responses and in leukocyte emigration to sites of inflammation.

**Tissue specificity**

Expressed on inflamed vascular endothelium, as well as on macrophage-like and dendritic cell types in both normal and inflamed tissue.

**Sequence similarities**

Contains 7 Ig-like C2-type (immunoglobulin-like) domains.

**Domain**

Either the first or the fourth Ig-like C2-type domain is required for VLA4-dependent cell adhesion.

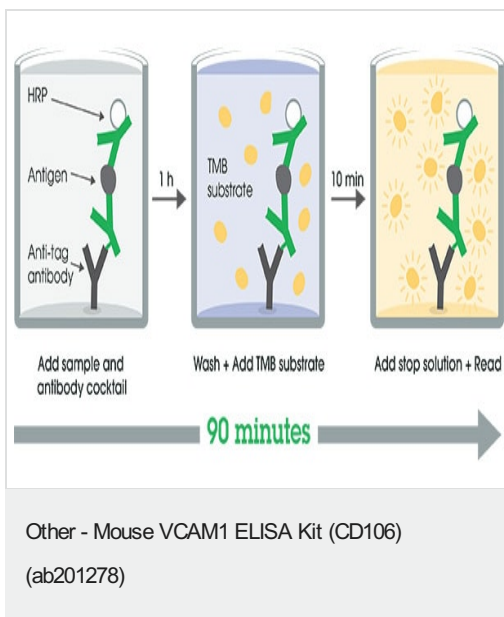
**Post-translational modifications**

Sialoglycoprotein.

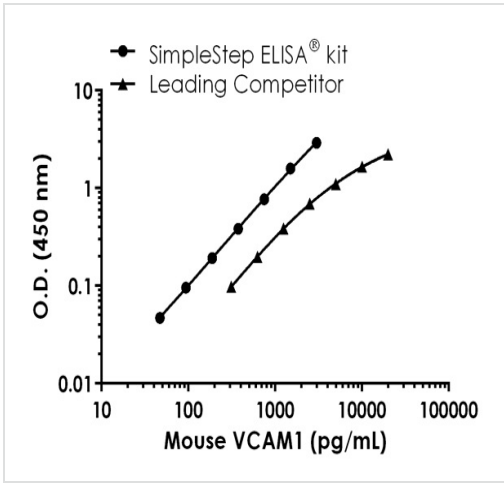
**Cellular localization**

Membrane.

**Images**

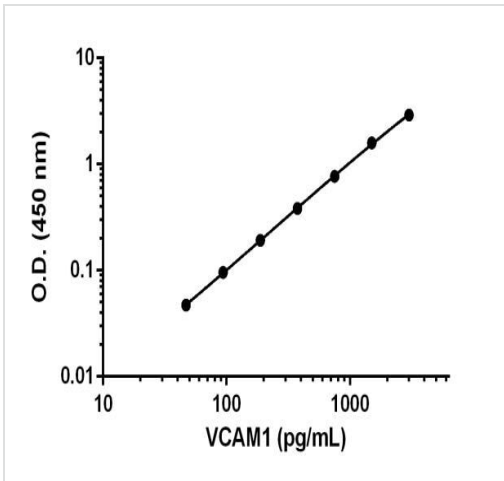


SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.



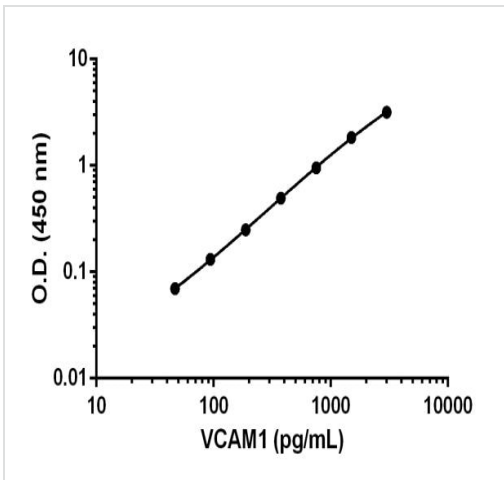
Standard curve comparison between mouse VCAM1 (CD106) SimpleStep ELISA® kit and traditional ELISA kit from leading competitor. SimpleStep ELISA kit shows a 9-fold increase in sensitivity.

Mouse VCAM1 (CD106) standard curve comparison data.



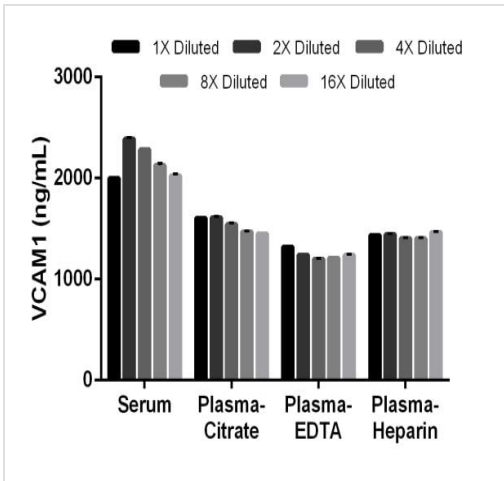
Background-subtracted data values (mean +/- SD) are graphed.

Example of VCAM1 standard curve in Sample Diluent NS.



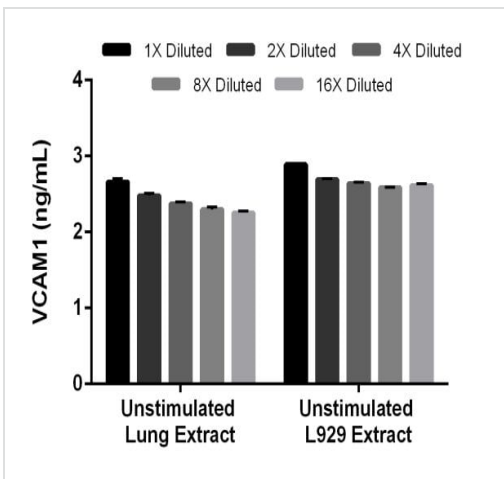
Background-subtracted data values (mean +/- SD) are graphed.

Example of VCAM1 standard curve in 1X Cell Extraction Buffer PTR.



The 1X dilution was 0.2% for each biological. Interpolated data values (mean +/- SD, n = 2) are graphed.

Titration of mouse serum, citrate plasma, EDTA plasma, and Heparin plasma within the working range of the assay.



The 1X dilution was an extract load of 250 µg/mL. Interpolated data values (mean +/- SD, n = 2) are graphed.

Titration of mouse unstimulated (-) Lung and L929 extracts within the working range of the assay.

Powered by  
recombinant antibodies



**Research with confidence**  
Consistent and reproducible results



**Long-term and scalable supply**  
Recombinant technology



**Success from the first experiment**  
Confirmed specificity



**Ethical standards compliant**  
Animal-free production

Sandwich ELISA - Mouse VCAM1 ELISA Kit  
(CD106) (ab201278)

To learn more about the advantages of recombinant antibodies see [here](#).

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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