

Human ALCAM ELISA Kit (CD166) ab270205

Recombinant SimpleStep ELISA

6 Images

Overview

Product name Human ALCAM ELISA Kit (CD166)

Detection method Colorimetric

Precision Intra-assay

Sample	n	Mean	SD	CV%
Serum	3			3.2%

Inter-assay

Sample	n	Mean	SD	CV%
Serum	8			6.6%

Sample type Serum, Cell Lysate, Cell culture media, Hep Plasma, EDTA Plasma, Cit plasma

Assay type Sandwich (quantitative)

Sensitivity 0.02 ng/ml

Range 0.188 ng/ml - 12 ng/ml

Recovery Sample specific recovery

Sample type	Average %	Range
Serum	119	114% - 123%
Cell Lysate	101	95% - 108%
Cell culture media	102	101% - 102%
Hep Plasma	114	111% - 116%
EDTA Plasma	115	104% - 125%
Cit plasma	118	108% - 125%

Assay time	1h 30m
Assay duration	One step assay
Species reactivity	Reacts with: Human
Product overview	<p>Human ALCAM ELISA Kit (CD166) (ab270205) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of ALCAM (CD166) protein in cell culture media, cell lysate, edta plasma, serum, cit plasma, and hep plasma. It uses our proprietary SimpleStep ELISA® technology. Quantitate Human ALCAM (CD166) with 0.02 ng/ml sensitivity.</p> <p>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:</p> <ul style="list-style-type: none"> - 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 <p>A 384-well SimpleStep ELISA® microplate (ab203359) is available to use as an alternative to the 96-well microplate provided with SimpleStep ELISA® kits.</p>
Notes	<p>Activated leukocyte cell adhesion molecule (ALCAM), also known as CD166, is a protein encoded by the <i>ALCAM</i> gene in humans. ALCAM is a type I transmembrane glycosylated member of the immunoglobulin superfamily of proteins and is mainly involved in the processes of cell adhesion and migration. This protein forms a homo-dimer through the extracellular domain portion or can form a hetero-dimer with T-cell differentiation antigen CD6 with the same region of ALCAM, and the affinity for CD6 is higher than self-association. Interaction with CD6 mediates promotes T-cell activation and proliferation, as well as the formation and maturation of the immunological synapse. ALCAM also mediates attachment of dendritic cells onto endothelial cells by homotypic interaction.</p> <p>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.</p>
Platform	Pre-coated microplate (12 x 8 well strips)

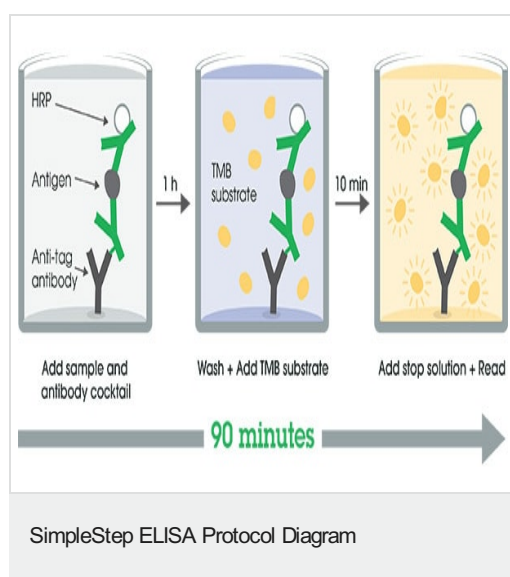
Properties

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

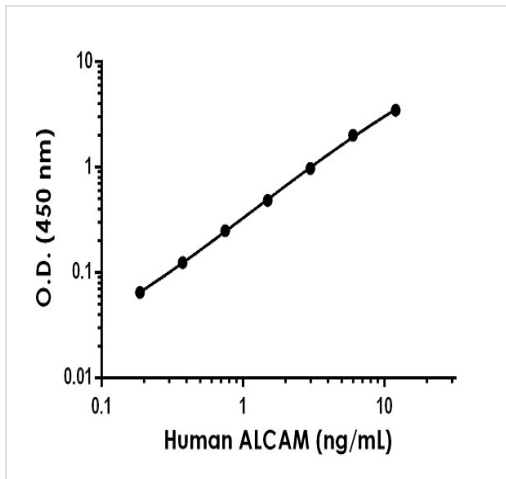
Components	1 x 96 tests
10X Human ALCAM (CD166) Capture Antibody	1 x 600µl
10X Human ALCAM (CD166) Detector Antibody	1 x 600µl

Components	1 x 96 tests
10X Wash Buffer PT (ab206977)	1 x 20ml
50X Cell Extraction Enhancer Solution (ab193971)	1 x 1ml
5X Cell Extraction Buffer PTR (ab193970)	1 x 10ml
Antibody Diluent CPI2	1 x 6ml
Human ALCAM (CD166) 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

Images

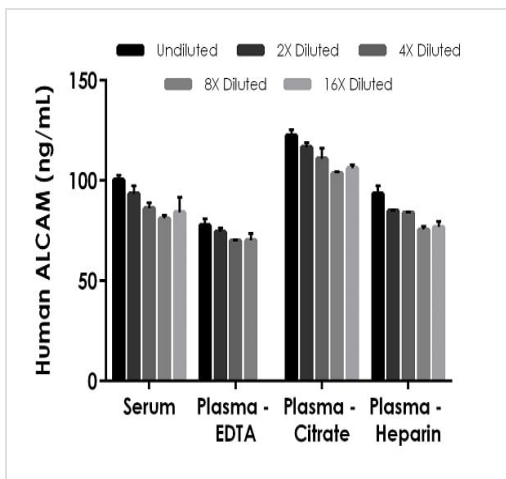


SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.



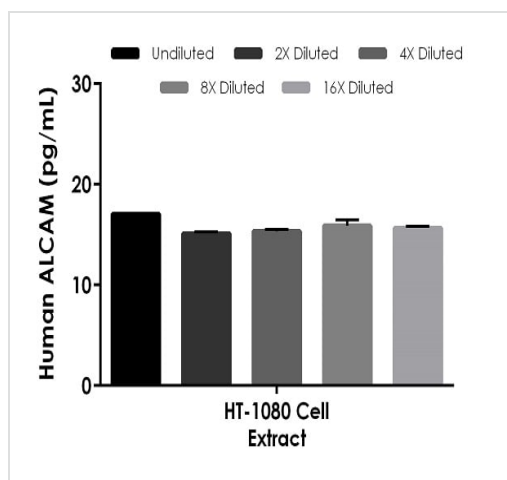
Example of human ALCAM standard curve in Sample Diluent NS.

The ALCAM standard curve was prepared as described in Section 10. Raw data values are shown in the table. Background-subtracted data values (mean \pm SD) are graphed.



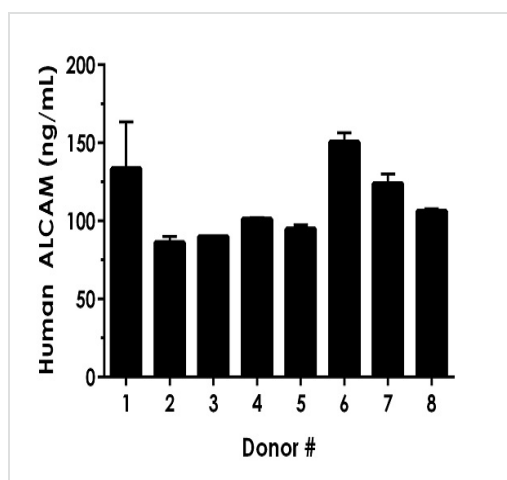
Interpolated concentrations of native ALCAM in human serum, plasma (EDTA), plasma (citrate), plasma (heparin).

The concentrations of ALCAM were measured in duplicates, interpolated from the target standard curves and corrected for sample dilution. Undiluted samples are as follows: serum 3.75%, plasma (EDTA) 2.5%, plasma (citrate) 5%, and plasma (heparin) 5%. The interpolated dilution factor corrected values are plotted (mean \pm SD, $n=2$). The mean target concentration was determined to be 94.3 ng/mL in serum, 73.1 ng/mL in plasma (EDTA), 112.0 ng/mL in plasma (citrate), and 82.9 ng/mL in plasma (heparin).



Interpolated concentrations of native ALCAM in human HT-1080 cell extract based on a 250 µg/mL extract load.

The concentrations of ALCAM were measured in duplicate and interpolated from the ALCAM standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted (mean \pm SD, n=2).



Serum from eight individual healthy ALCAM gender donors was measured in duplicate.

Interpolated dilution factor corrected values are plotted (mean \pm SD, n=2). The mean ALCAM concentration was determined to be 111 ng/mL with a range of 86 – 133 ng/mL.

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recombinant antibodies



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Sandwich ELISA - Human ALCAM ELISA Kit
(CD166) (ab270205)

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

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