

Human CD38 ELISA Kit ab267801

Recombinant SimpleStep ELISA[®]

[7 Images](#)

Overview

Product name Human CD38 ELISA Kit

Detection method Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%
Serum	8			5.2%

Inter-assay

Sample	n	Mean	SD	CV%
Serum	3			7.9%

Sample type

Cell culture supernatant, Serum, Cell Lysate, Hep Plasma, EDTA Plasma, Cit plasma

Assay type

Sandwich (quantitative)

Sensitivity

7.44 pg/ml

Range

31.25 pg/ml - 2000 pg/ml

Recovery

Sample specific recovery

Sample type	Average %	Range
Cell culture supernatant	107	98% - 117%
Serum	85	82% - 88%
Cell Lysate	87	75% - 94%
Hep Plasma	88	85% - 90%
EDTA Plasma	82	76% - 90%
Cit plasma	91	90% - 93%

Assay time	1h 30m
Assay duration	One step assay
Species reactivity	Reacts with: Human
Product overview	Human CD38 ELISA Kit (ab267801) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of CD38 protein in cell culture supernatant, cell lysate, edta plasma, hep plasma, serum, and cit plasma. It uses our proprietary SimpleStep ELISA® technology. Quantitate Human CD38 with 7.44 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

CD38, also known as ADP-ribosyl cyclase/cyclic ADP-ribose hydrolase 1 (EC:3.2.2.6), is a single-pass type II membrane protein. CD38 catalyzes synthesis of cyclic ADP-ribose, a second messenger for glucose-induced insulin secretion. It also has a cyclic ADP-ribose hydrolase activity.

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	Pre-coated microplate (12 x 8 well strips)
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Properties

Storage instructions	Store at +4°C. Please refer to protocols.
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Components	1 x 96 tests
10X Human CD38 Capture Antibody	1 x 600µl
10X Human CD38 Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml
5X Cell Extraction Buffer PTR (ab193970)	1 x 10ml

Components	1 x 96 tests
Antibody Diluent 5BI	1 x 6ml
Human CD38 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 Synthesizes cyclic ADP-ribose, a second messenger for glucose-induced insulin secretion. Also has cADPr hydrolase activity. Also moonlights as a receptor in cells of the immune system.

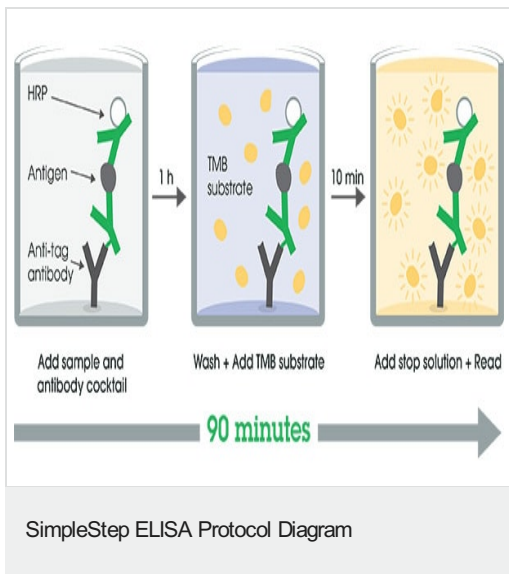
Tissue specificity Expressed at high levels in pancreas, liver, kidney, brain, testis, ovary, placenta, malignant lymphoma and neuroblastoma.

Sequence similarities Belongs to the ADP-ribosyl cyclase family.

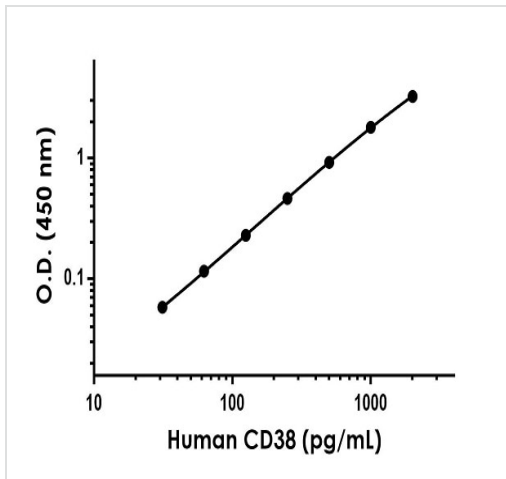
Developmental stage Preferentially expressed at both early and late stages of the B and T-cell maturation. It is also detected on erythroid and myeloid progenitors in bone marrow, where the level of surface expression was shown to decrease during differentiation of blast-forming unit E to colony-forming unit E.

Cellular localization Membrane.

Images

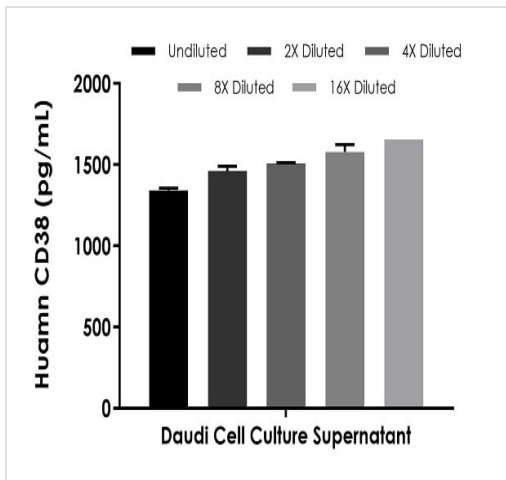


SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.



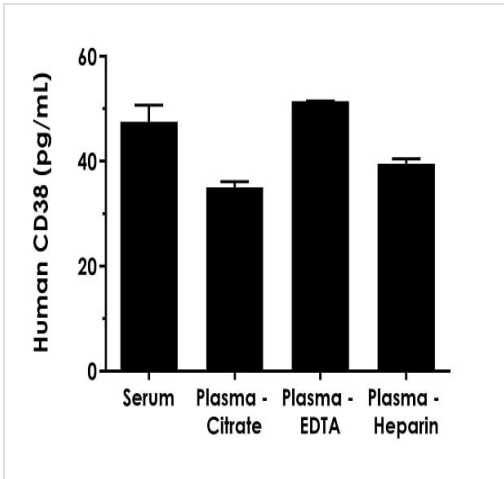
Example of human CD38 standard curve in Sample Diluent NS.

The CD38 standard curve was prepared as described in Section 10. Raw data values are shown in the table. Background-subtracted data values (mean +/- SD) are graphed.



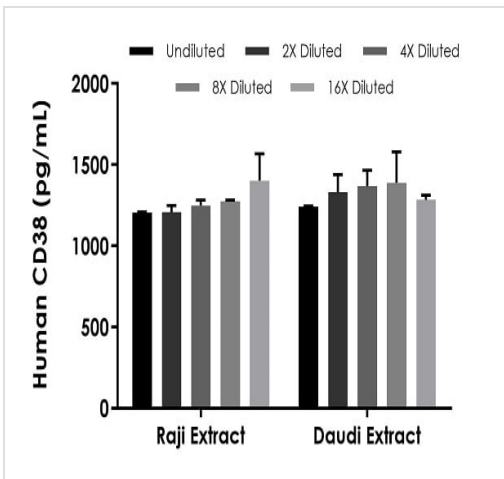
Interpolated concentrations of native CD38 in human Daudi cell culture supernatant sample.

The concentrations of CD38 were measured in duplicates, interpolated from the CD38 standard curves and corrected for sample dilution. Undiluted samples are as follows: Daudi cell culture supernatant 100%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean CD38 concentration was determined to be 1,493 pg/mL in neat Daudi supernatant.



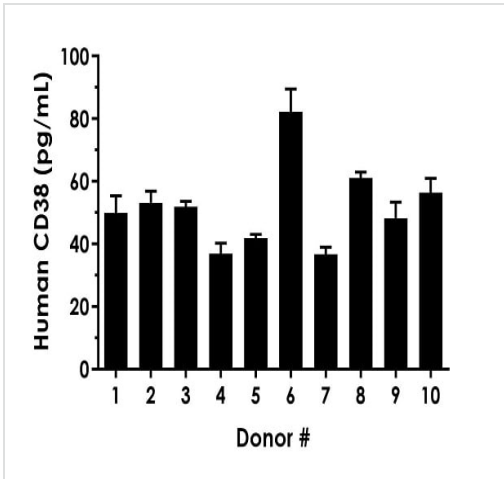
Interpolated concentrations of native CD38 in human serum, plasma-citrate, plasma-EDTA and plasma-heparin samples.

The concentrations of CD38 were measured in duplicates in neat samples and interpolated from the CD38 standard curves. The interpolated values are plotted (mean +/- SD, n=2). The mean CD38 concentration was determined to be 47.6 pg/mL in serum, 35.0 pg/mL in plasma-citrate, 51.4 pg/mL in plasma-EDTA and 39.5 pg/mL in plasma-heparin.



Interpolated concentrations of native CD38 in human Raji and Daudi cells based on a 5 µg/mL extract load.

The concentrations of CD38 were measured in duplicate and interpolated from the CD38 standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean CD38 concentration was determined to be 1,268 pg/mL in Raji extract and 1,323 pg/mL in Daudi extract.



Interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean CD38 concentration was determined to be 51.8 pg/mL with a range of 36.6 – 82.2 pg/mL.

Serum from ten individual healthy human female donors was measured in duplicate.

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 - Human CD38 ELISA Kit
(ab267801)

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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