

Product datasheet

Human CD276 ELISA Kit ab221831

Recombinant

[4 Images](#)

Overview

Product name Human CD276 ELISA Kit

Detection method Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%
Overall	3			2.9%

Inter-assay

Sample	n	Mean	SD	CV%
Overall	5			9.9%

Sample type

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

Assay type

Sandwich (quantitative)

Sensitivity

178 pg/ml

Range

578 pg/ml - 37000 pg/ml

Recovery

Sample specific recovery

Sample type	Average %	Range
Cell culture supernatant	94	83% - 101%
Urine	89	88% - 91%
Serum	102	100% - 104%
Hep Plasma	87	85% - 89%
EDTA Plasma	91	87% - 94%
Cit plasma	94	90% - 100%

Assay time	2h 30m
Assay duration	One step assay
Species reactivity	Reacts with: Human Does not react with: Cow

Product overview Human CD276 ELISA Kit (ab221831) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of CD276 protein in cell culture supernatant, cit plasma, edta plasma, hep plasma, serum, and urine. It uses our proprietary SimpleStep ELISA® technology. Quantitate Human CD276 with 178 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
- 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 CD276 (B7-H3) is a glycoprotein member of the B7 family, Ig superfamily of proteins. CD276 is involved in the regulation of T-cell-mediated immune response and is expressed by a variety of cell types.

Platform Microplate (12 x 8 well strips)

Properties

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

Components	1 x 96 tests
10X Human CD276 Capture Antibody	1 x 600µl
10X Human CD276 Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml
Antibody Diluent 4BI	1 x 6ml
Human CD276 Lyophilized Recombinant Protein	1 x 2 vials
Plate Seals	1 unit
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit

Components	1 x 96 tests
Sample Diluent NS (ab193972)	1 x 50ml
Stop Solution	1 x 12ml
TMB Development Solution	1 x 12ml

Function

May participate in the regulation of T-cell-mediated immune response. May play a protective role in tumor cells by inhibiting natural-killer mediated cell lysis as well as a role of marker for detection of neuroblastoma cells. May be involved in the development of acute and chronic transplant rejection and in the regulation of lymphocytic activity at mucosal surfaces. Could also play a key role in providing the placenta and fetus with a suitable immunological environment throughout pregnancy. Both isoform 1 and isoform 2 appear to be redundant in their ability to modulate CD4 T-cell responses. Isoform 2 is shown to enhance the induction of cytotoxic T-cells and selectively stimulates interferon gamma production in the presence of T-cell receptor signaling.

Tissue specificity

Ubiquitous but not detectable in peripheral blood lymphocytes or granulocytes. Weakly expressed in resting monocytes. Expressed in dendritic cells derived from monocytes. Expressed in epithelial cells of sinonasal tissue. Expressed in extravillous trophoblast cells and Hofbauer cells of the first trimester placenta and term placenta.

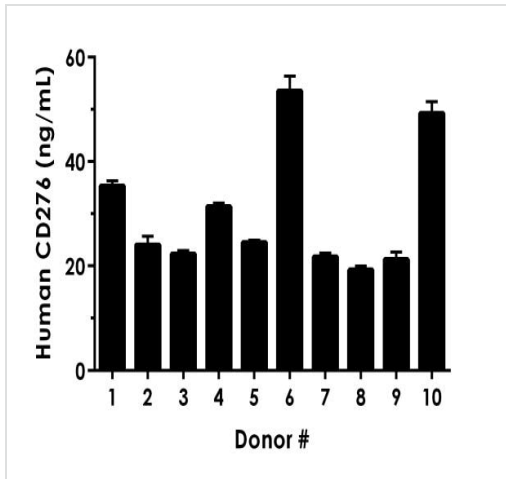
Sequence similarities

Belongs to the immunoglobulin superfamily. BTN/MOG family.
 Contains 2 Ig-like C2-type (immunoglobulin-like) domains.
 Contains 2 Ig-like V-type (immunoglobulin-like) domains.

Cellular localization

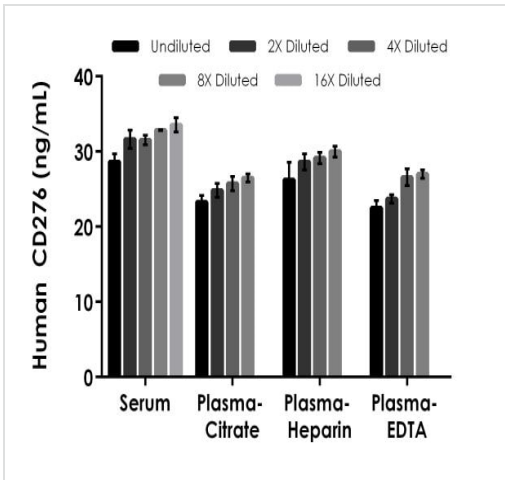
Membrane.

Images



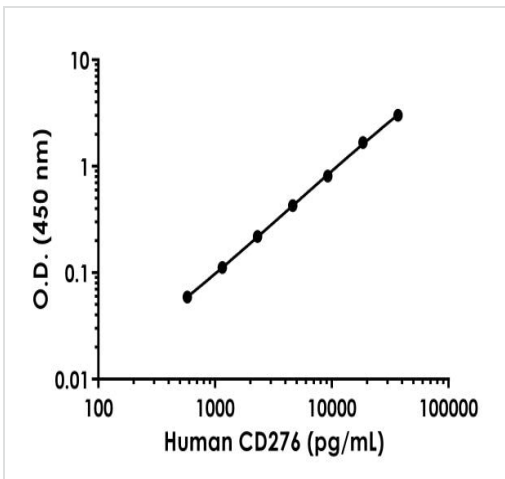
Serum from ten individual healthy human female donors was measured in duplicate. Interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean CD276 concentration was determined to be 31.5 ng/mL with a range of 18.7-53.6 ng/mL.

Concentrations of CD276 in human serum samples



Concentrations of CD276 in human serum and plasma samples

Interpolated concentrations of CD276 in human serum and plasma samples. The concentrations of CD276 were measured in duplicates, interpolated from the CD276 standard curves and corrected for sample dilution. Undiluted samples: serum 50%, plasma (EDTA) 25%, plasma (citrate) 25%, plasma (heparin) 50%. The interpolated dilution factor corrected values are plotted (mean \pm SD, n=2). The mean CD276 concentration was determined to be 31.7 ng/mL in serum, 25.0 ng/mL in plasma (EDTA), 25.1 ng/mL in plasma (citrate) and 28.5 ng/mL in plasma (heparin).



Human CD276 standard curve

Example of human CD276 standard curve in Sample Diluent NS.

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 CD276 ELISA Kit
(ab221831)

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

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