

### Human TNFRSF14 ELISA Kit ab216950

Recombinant SimpleStep ELISA

9 Images

#### Overview

**Product name** Human TNFRSF14 ELISA Kit

**Detection method** Colorimetric

#### Precision

Intra-assay

Sample	n	Mean	SD	CV%
Human serum	5			2.9%

Inter-assay

Sample	n	Mean	SD	CV%
Human serum	3			4.5%

#### Sample type

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

#### Assay type

Sandwich (quantitative)

#### Sensitivity

9.2 pg/ml

#### Range

31.3 pg/ml - 2000 pg/ml

#### Recovery

Sample specific recovery

Sample type	Average %	Range
Serum	107	103% - 113%
Cell culture extracts	105	100% - 109%
Tissue Extracts	105	103% - 106%
Cell culture media	116	114% - 119%
Hep Plasma	102	98% - 105%
EDTA Plasma	102	91% - 110%

Sample type	Average %	Range
Cit plasma	107	100% - 115%

**Assay time**

1h 30m

**Assay duration**

One step assay

**Species reactivity**

**Reacts with:** Human

**Does not react with:** Cow

**Product overview**

Human TNFRSF14 ELISA Kit (ab216950) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of TNFRSF14 protein in cell culture extracts, cit plasma, edta plasma, hep plasma, serum, cell culture supernatant, and tissue extracts. It uses our proprietary SimpleStep ELISA® technology. Quantitate Human TNFRSF14 with 9.2 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**

TNFRSF14 (also known as tumor necrosis factor receptor superfamily member 14 or Herpesvirus entry mediator or HVEM) is a cell surface receptor of the TNF-receptor superfamily. TNFRSF14 is a receptor for BTLA, LIGHT, lymphotaxin alpha. Herpesvirus glycoprotein D binds to TNFRSF14.

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)

**Properties**

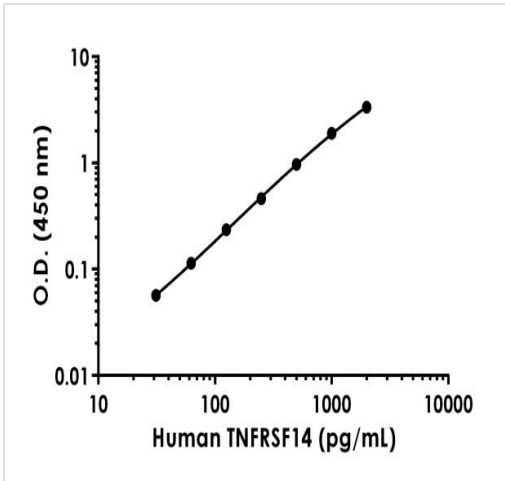
**Storage instructions** Store at +4°C. Please refer to protocols.

Components	1 x 96 tests
10X Human TNFRSF14 Capture Antibody	1 x 600µl
10X Human TNFRSF14 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 5BI	1 x 6ml
Human TNFRSF14 Lyophilized Recombinant Protein	2 vials
Plate Seals	1 unit
Sample Diluent NS (ab193972)	1 x 12ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit
Stop Solution	1 x 12ml
TMB Development Solution	1 x 12ml

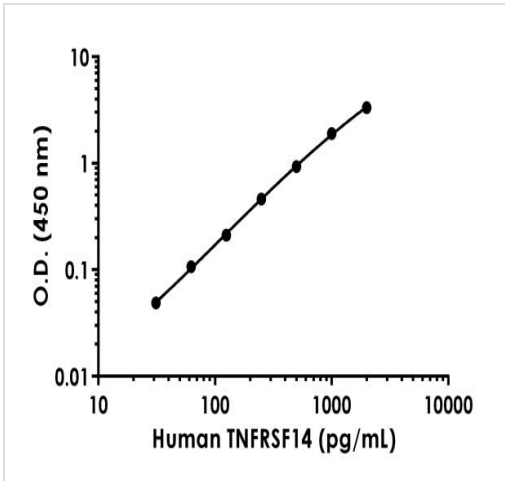
<b>Function</b>	Receptor for BTLA. Receptor for TNFSF14/LIGHT and homotrimeric TNFSF1/lymphotoxin-alpha. Involved in lymphocyte activation. Plays an important role in HSV pathogenesis because it enhanced the entry of several wild-type HSV strains of both serotypes into CHO cells, and mediated HSV entry into activated human T-cells.
<b>Tissue specificity</b>	Widely expressed, with the highest expression in lung, spleen and thymus.
<b>Sequence similarities</b>	Contains 3 TNFR-Cys repeats.
<b>Post-translational modifications</b>	N-glycosylated.
<b>Cellular localization</b>	Membrane.

## Images



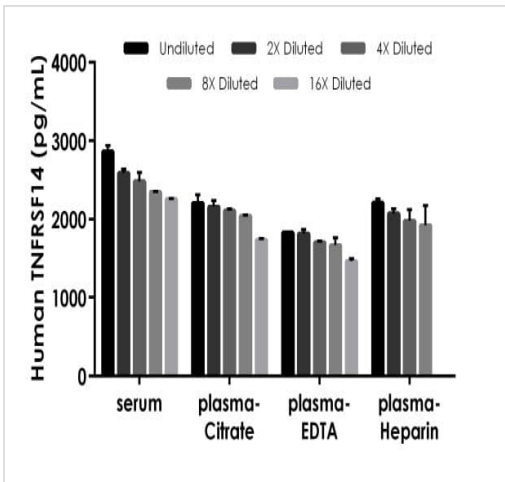
Background-subtracted data values (mean +/- SD) are graphed.

Example of human TNFRSF14 standard curve in Sample Diluent NS.



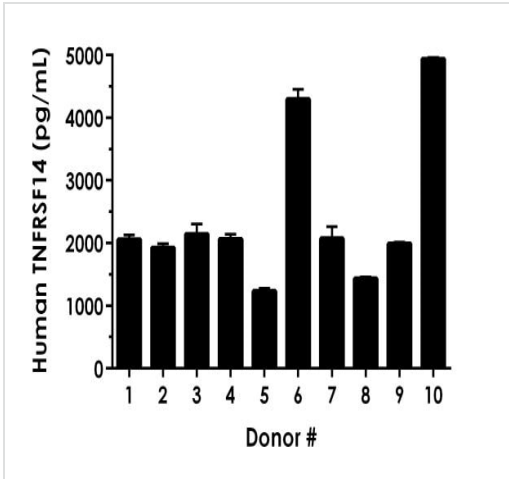
Background-subtracted data values (mean +/- SD) are graphed.

Example of human TNFRSF14 standard curve in 1X Cell Extraction Buffer PTR.



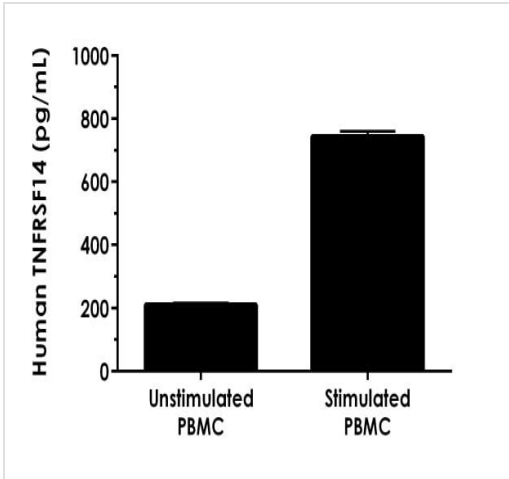
The concentrations of TNFRSF14 were measured in duplicates, interpolated from the TNFRSF14 standard curves and corrected for sample dilution. Undiluted samples are as follows: serum 50%, plasma (citrate) 50%, plasma (EDTA) 50%, and plasma (heparin) 50%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean TNFRSF14 concentration was determined to be 2,507 pg/mL in serum, 2,050 pg/mL in plasma (citrate) and 1,696 pg/mL in plasma (EDTA) and 2,044 pg/mL in plasma (heparin).

Interpolated concentrations of native TNFRSF14 in human serum and plasma samples.



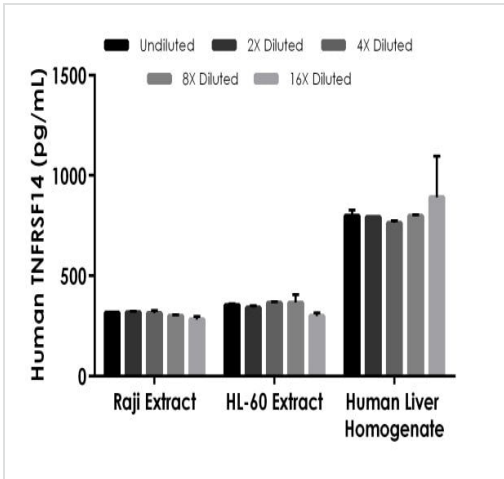
Serum from ten individual healthy human female donors was measured in duplicate.

Interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean TNFRSF14 concentration was determined to be 2413 pg/mL with a range of 1201 – 4953 pg/mL.



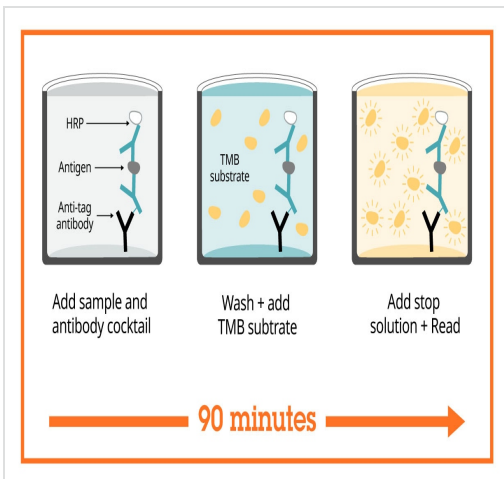
Comparison of secreted TNFSF14 in unstimulated and PMA/PHA-stimulated Peripheral Blood Monocyte (PBMC) Cells.

PBMC cells were grown in the absence (unstimulated) or presence of Phorbol Myristate Acetate (PMA) and phytohemagglutinin (PHA) (stimulated) for 3 days. TNFRSF14 was measured in 2-fold diluted cell culture supernatants of unstimulated and PMA/PHA stimulated PBMC and cell culture media. Measured values were interpolated from the TNFRSF14 Standard Curve diluted in Sample Diluent NS and corrected for dilution factor. Mean of duplicate values +/-SD are graphed: 211 pg/mL in unstimulated, 744 pg/mL in stimulated, and undetectable in media.



Interpolated concentrations of native TNFRSF14 in human Raji and HL-60 cell extracts and human liver homogenate tissue extract samples.

Samples based on a 400 µg/mL extract load. The concentrations of TNFRSF14 were measured in duplicate and interpolated from the TNFRSF14 standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean TNFRSF14 concentration was determined to be 306 pg/mL in Raji Extract, 345 pg/mL in HL-60 extract, and 809 pg/mL in Human Liver Homogenate Extract.



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.

Sandwich ELISA - Human TNFRSF14 ELISA Kit (ab216950)

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

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

Sandwich ELISA - Human TNFRSF14 ELISA Kit (ab216950)

**Get more done with SimpleStep ELISA**



**Easy to use**  
Single-wash 90-minute protocol



**Flexible**  
Matched antibody pairs available



**Precision antibodies**  
High sensitivity, specificity and reproducibility



**Scalable**  
Now in 10-pack and 384-well formats

To learn more about the advantages of SimpleStep ELISA® kits see [here](#).

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(ab216950)

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

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