

Product datasheet

Human sTNF RII ELISA Kit (TNFRSF1B) α b260061

Recombinant SimpleStep ELISA

[7 Images](#)

Overview

Product name Human sTNF RII ELISA Kit (TNFRSF1B)

Detection method Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%
Serum	8			2.5%

Inter-assay

Sample	n	Mean	SD	CV%
Serum	3			2.5%

Sample type

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

Assay type

Sandwich (quantitative)

Sensitivity

4.88 pg/ml

Range

15.63 pg/ml - 1000 pg/ml

Recovery

Sample specific recovery

Sample type	Average %	Range
Cell culture supernatant	95	88% - 107%
Urine	103	91% - 119%
Serum	101	91% - 110%
Hep Plasma	105	90% - 117%
EDTA Plasma	90	81% - 103%
Cit plasma	105	93% - 113%

Assay time	1h 30m
Assay duration	One step assay
Species reactivity	Reacts with: Human Does not react with: Cow

Product overview Human sTNF RII ELISA Kit (TNFRSF1B) (ab260061) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of sTNF RII (TNFRSF1B) protein in cell culture supernatant, cit plasma, edta plasma, hep plasma, serum, and urine. It uses our proprietary SimpleStep ELISA® technology. Quantitate Human sTNF RII (TNFRSF1B) with 4.88 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 Soluble Tumor Necrosis Factor Receptor II (sTNF RII), also known as TNFRSF1B, p75/p80, and CD120b, is a widely expressed receptor for membrane-associated TNF-alpha and Lymphotoxin-alpha. Its activation initiates pro-inflammatory and pro-survival responses via NFkB-dependent signaling pathways, although it may also induce apoptosis. The TNF RII extracellular domain can be proteolytically cleaved to make soluble TNF RII. The standard protein in this kit is soluble TNF RII and the capture and detector antibodies were raised against this region of TNF RII.

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 sTNF RII (TNFRSF1B) Capture Antibody	1 x 600µl
10X Human sTNF RII (TNFRSF1B) Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml
Antibody Diluent 4BI	1 x 6ml
Human sTNF RII (TNFRSF1B) Lyophilized Recombinant Protein	2 vials

Components	1 x 96 tests
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

Receptor with high affinity for TNFSF2/TNF-alpha and approximately 5-fold lower affinity for homotrimeric TNFSF1/lymphotoxin-alpha. The TRAF1/TRAF2 complex recruits the apoptotic suppressors BIRC2 and BIRC3 to TNFRSF1B/TNFR2. This receptor mediates most of the metabolic effects of TNF-alpha. Isoform 2 blocks TNF-alpha-induced apoptosis, which suggests that it regulates TNF-alpha function by antagonizing its biological activity.

Sequence similarities

Contains 4 TNFR-Cys repeats.

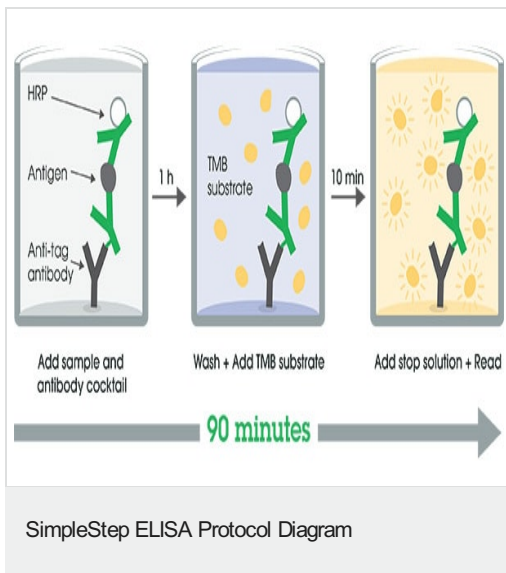
Post-translational modifications

Phosphorylated; mainly on serine residues and with a very low level on threonine residues. A soluble form (tumor necrosis factor binding protein 2) is produced from the membrane form by proteolytic processing.

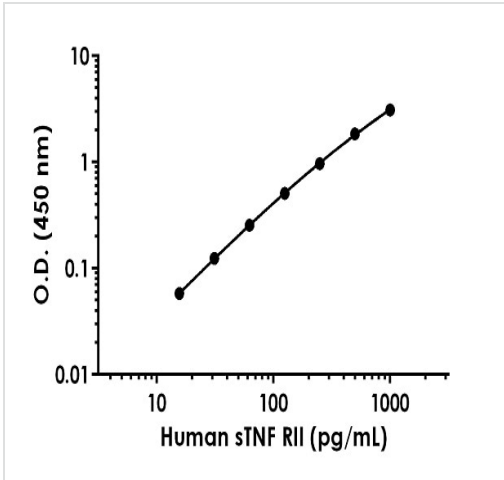
Cellular localization

Secreted and Cell membrane.

Images

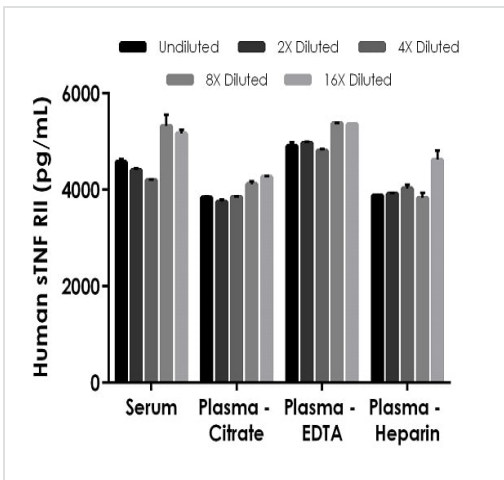


SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.



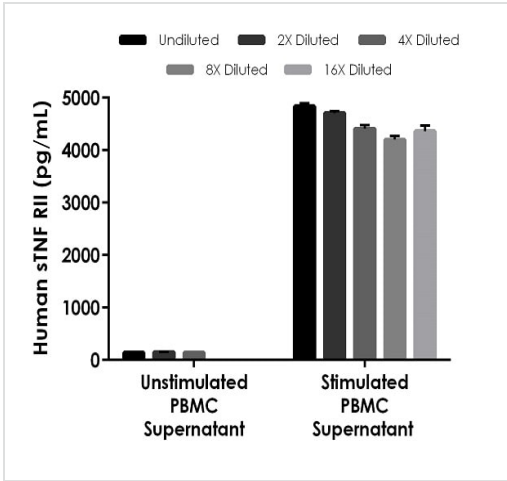
Example of Human sTNF RII standard curve in Sample Diluent NS.

The sTNF RII 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.



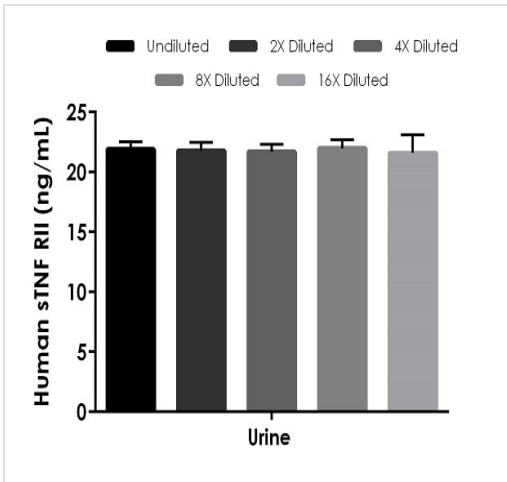
Interpolated concentrations of native sTNF RII in Human serum and plasma samples.

The concentrations of sTNF RII were measured in duplicates, interpolated from the sTNF RII standard curves and corrected for sample dilution. Undiluted samples are as follows: serum 12.5%, plasma (citrate) 25%, plasma (EDTA) 12.5%, and plasma (heparin) 25%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean sTNF RII concentration was determined to be 4735.93 pg/mL in serum, 3966.75 pg/mL in plasma (citrate), 5085.66 pg/mL in plasma (EDTA), and 4056.80 pg/mL in plasma (heparin).



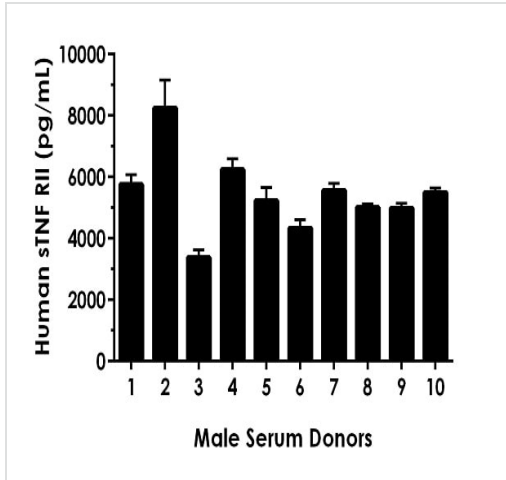
Interpolated concentrations of native sTNF RII in Human PBMC cell culture supernatant samples.

The concentrations of sTNF RII were measured in duplicates, interpolated from the sTNF RII standard curves and corrected for sample dilution. Undiluted samples are as follows: Unstimulated PBMC cell culture supernatant 50%, PHA-M stimulated PBMC cell culture supernatant 12.5%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean sTNF RII concentration was determined to be 145.97 pg/mL in unstimulated PBMC supernatant and 4504.38 pg/mL PHA-M stimulated PBMC supernatant.



Interpolated concentrations of native sTNF RII in Human urine samples.


The concentrations of sTNF RII were measured in duplicates, interpolated from the sTNF RII standard curves and corrected for sample dilution. Undiluted samples are as follows: urine 2.5%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean sTNF RII concentration was determined to be 21.79 ng/mL in urine.



Interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean sTNF RII concentration was determined to be 5427.51 pg/mL with a range of 3377.03 – 8250.55 pg/mL.

10% Serum from ten individual healthy Human male donors was measured in duplicate.

Powered by
recombinant antibodies

 <p>Research with confidence Consistent and reproducible results</p>	 <p>Long-term and scalable supply Recombinant technology</p>
 <p>Success from the first experiment Confirmed specificity</p>	 <p>Ethical standards compliant Animal-free production</p>

Sandwich ELISA - Human sTNF RII ELISA
Kit (TNFRSF1B) (ab260061)

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

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