

Human TNF beta ELISA Kit ab229202

Recombinant SimpleStep ELISA

5 Images

Overview

Product name Human TNF beta ELISA Kit

Detection method Colorimetric

Precision Intra-assay

| Sample | n | Mean | SD | CV% |
|----------|---|------|----|------|
| PBMC s/n | 9 | | | 2.5% |

Inter-assay

| Sample | n | Mean | SD | CV% |
|----------|---|------|----|------|
| PBMC s/n | 3 | | | 3.3% |

Sample type Cell culture supernatant, Serum, Hep Plasma, EDTA Plasma, Cit plasma

Assay type Sandwich (quantitative)

Sensitivity 1.84 pg/ml

Range 16 pg/ml - 1000 pg/ml

Recovery Sample specific recovery

| Sample type | Average % | Range |
|--------------------------|-----------|------------|
| Cell culture supernatant | 101 | 98% - 103% |
| Serum | 82 | 82% - 83% |
| Hep Plasma | 87 | 87% - 89% |
| EDTA Plasma | 81 | 80% - 82% |
| Cit plasma | 80 | 79% - 81% |

Assay time 1h 30m

Assay duration One step assay

Species reactivity**Reacts with:** Human, Rhesus monkey**Product overview**

Human TNF beta ELISA Kit (ab229202) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of TNF beta protein in cell culture supernatant, serum, cit plasma, edta plasma, and hep plasma. It uses our proprietary SimpleStep ELISA® technology. Quantitate Human TNF beta with 1.84 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.

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 TNF beta Capture Antibody | 1 x 600µl |
| 10X Human TNF beta Detector Antibody | 1 x 600µl |
| 10X Wash Buffer PT (ab206977) | 1 x 20ml |
| Antibody Diluent CPR | 1 x 6ml |
| Human TNF beta 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

Cytokine that in its homotrimeric form binds to TNFRSF1A/TNFR1, TNFRSF1B/TNFR and TNFRSF14/HVEM. In its heterotrimeric form with LTB binds to TNFRSF3/LTBR. Lymphotoxin is

Involvement in disease

Sequence similarities

Cellular localization

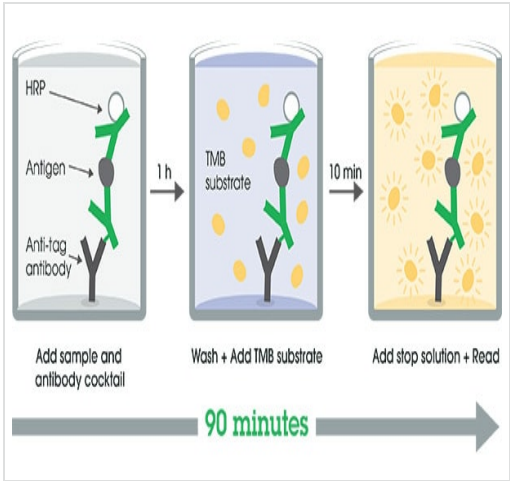
produced by lymphocytes and cytotoxic for a wide range of tumor cells in vitro and in vivo.

Genetic variations in LTA are a cause of susceptibility psoriatic arthritis (PSORAS) [MIM:607507]. PSORAS is an inflammatory, seronegative arthritis associated with psoriasis. It is a heterogeneous disorder ranging from a mild, non-destructive disease to a severe, progressive, erosive arthropathy. Five types of psoriatic arthritis have been defined: asymmetrical oligoarthritis characterized by primary involvement of the small joints of the fingers or toes; asymmetrical arthritis which involves the joints of the extremities; symmetrical polyarthritis characterized by a rheumatoidlike pattern that can involve hands, wrists, ankles, and feet; arthritis mutilans, which is a rare but deforming and destructive condition; arthritis of the sacroiliac joints and spine (psoriatic spondylitis).

Belongs to the tumor necrosis factor family.

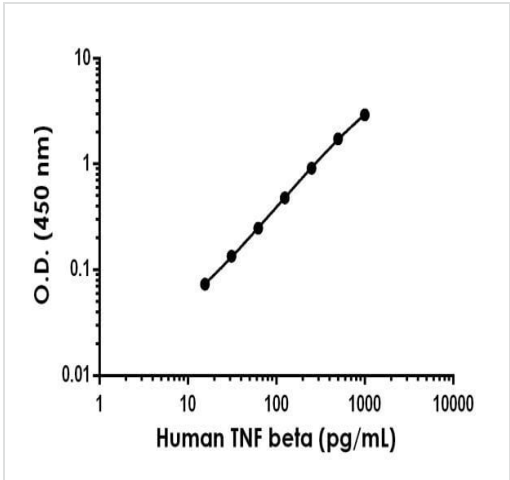
Secreted. Membrane. The homotrimer is secreted. The heterotrimer is membrane-associated.

Images



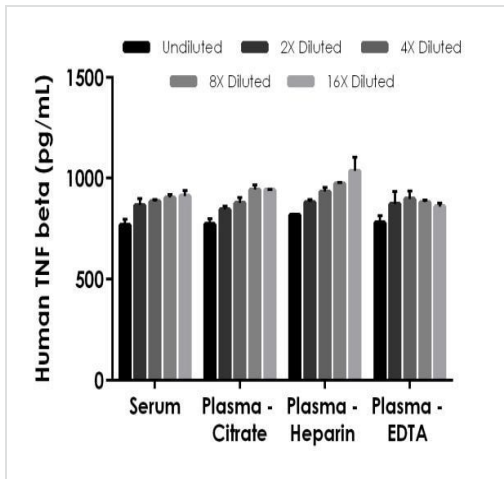
SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.

Other - Human TNF beta ELISA Kit (ab229202)



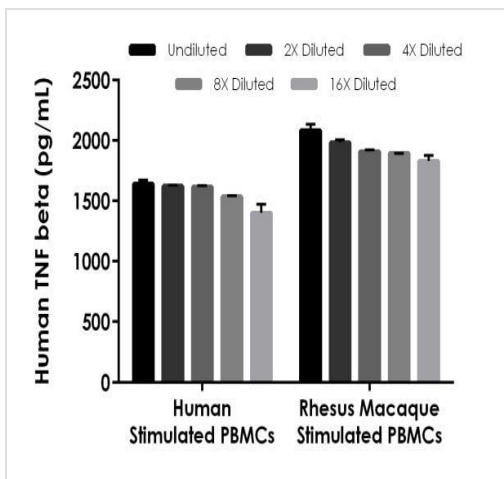
The TNF beta standard curve was prepared as described in Section 10. Background-subtracted data values (mean +/- SD) are graphed.

Example of human TNF beta standard curve in Sample Diluent NS.



Interpolated concentrations of spiked TNF beta in human serum and plasma samples.

The concentrations of TNF beta were measured in duplicates, interpolated from the TNF beta standard curves and corrected for sample dilution. Undiluted samples are as follows: serum 25%, plasma (citrate) 25%, plasma (heparin) 25% and plasma (EDTA) 25%. The interpolated dilution factor corrected values are plotted (mean \pm SD, n=2).



Interpolated concentrations of native TNF beta in human and Rhesus Macaque PBMC cell culture supernatants.

PBMCs were either stimulated with 1.5% PHA or unstimulated for 48 hours. The concentrations of TNF beta were measured in duplicate and interpolated from the TNF beta standard curve and corrected for sample dilution. Undiluted samples are as follows: Stimulated human PBMC supernatant 25% and stimulated Rhesus Macaque PBMC supernatant 25%. The interpolated dilution factor corrected values are plotted (mean \pm SD, n=2). The mean TNF beta concentration was determined to be 1,660 pg/mL in the stimulated human PBMC supernatant, 1,940 pg/mL in the Rhesus Macaque stimulated PBMC supernatant, and undetectable in the unstimulated human PBMC supernatant (not shown).

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 TNF beta ELISA Kit
(ab229202)

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

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