abcam

Product datasheet

Human FAS ELISA Kit ab183360

Recombinant SimpleStep ELISA

8 Images

Overview

Product name Human FAS ELISA Kit

Detection method Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%
Media	8			3.8%

Inter-assay

Sample	n	Mean	SD	CV%
Media	3			9.5%

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

Assay type Sandwich (quantitative)

Sensitivity 26 pg/ml

Range 46.88 pg/ml - 3000 pg/ml

Recovery

Sample specific recovery

Sample type	Average %	Range
Cell culture supernatant	97	91% - 108%
Serum	97	88% - 107%
Cell culture media	100	94% - 105%
Hep Plasma	105	98% - 111%
EDTA Plasma	92	81% - 102%
Cit plasma	98	90% - 105%

Assay time 1h 30m

Assay duration One step assay

Species reactivity **Reacts with:** Human

Product overview **As of October 15, 2019, Human FAS ELISA kit has been re-developed. We have identified new recombinant monoclonal antibodies to provide improved performance and consistency.**

Human FAS ELISA kit (ab183360) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of FAS protein in human cell culture supernatant, serum, and plasma samples. It uses our proprietary SimpleStep ELISA® technology. Quantitate human FAS with 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 SimpeStep ELISA® kits.

Notes FAS is a plasma membrane receptor for FASLG ligand (TNFSF6/FASLG). Upon ligand binding, the FASLG Receptor is activated and the adapter molecule FADD recruits caspase-8 to the activated receptor. The resulting death-inducing signaling complex (DISC) performs caspase-8 proteolytic activation which initiates the subsequent cascade of caspases (aspartate-specific cysteine proteases) activation mediating apoptosis. FASLG-mediated apoptosis may have a role in the induction of peripheral tolerance, in the antigen-stimulated suicide of mature T-cells, or both. The secreted isoforms 2 to 6 of the FASLG Receptor block apoptosis as they sequester the Fas ligand.

This kit uses a recombinant protein fragment corresponding to the extracellular portion (amino acid 17-172) of the full length Human Fas Receptor protein as standard sample.

Platform Microplate

Properties

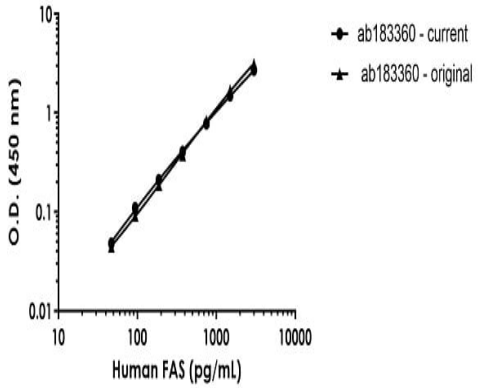
Storage instructions Store at +4°C. Please refer to protocols.

Components	1 x 96 tests
10X Human FAS Capture Antibody	1 x 600µl
10X Human FAS Detector Antibody	1 x 600µl

Components	1 x 96 tests
10X Wash Buffer PT (ab206977)	1 x 20ml
Antibody Diluent CPI - HAMA Blocker (ab193969)	1 x 6ml
Human FAS 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

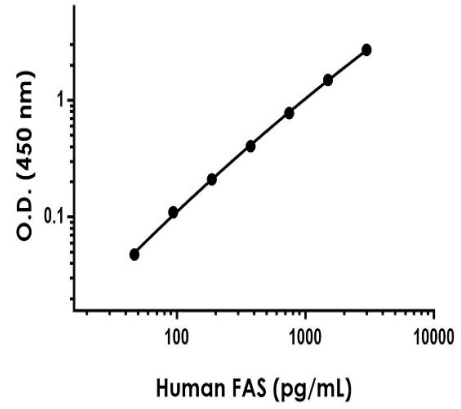
Function	Receptor for TNFSF6/FASLG. The adapter molecule FADD recruits caspase-8 to the activated receptor. The resulting death-inducing signaling complex (DISC) performs caspase-8 proteolytic activation which initiates the subsequent cascade of caspases (aspartate-specific cysteine proteases) mediating apoptosis. FAS-mediated apoptosis may have a role in the induction of peripheral tolerance, in the antigen-stimulated suicide of mature T-cells, or both. The secreted isoforms 2 to 6 block apoptosis (in vitro).
Tissue specificity	Isoform 1 and isoform 6 are expressed at equal levels in resting peripheral blood mononuclear cells. After activation there is an increase in isoform 1 and decrease in the levels of isoform 6.
Involvement in disease	Defects in FAS are the cause of autoimmune lymphoproliferative syndrome type 1A (ALPS1A) [MIM:601859]; also known as Canale-Smith syndrome (CSS). ALPS is a childhood syndrome involving hemolytic anemia and thrombocytopenia with massive lymphadenopathy and splenomegaly.
Sequence similarities	Contains 1 death domain. Contains 3 TNFR-Cys repeats.
Domain	Contains a death domain involved in the binding of FADD, and maybe to other cytosolic adapter proteins.
Cellular localization	Secreted and Cell membrane.

Images



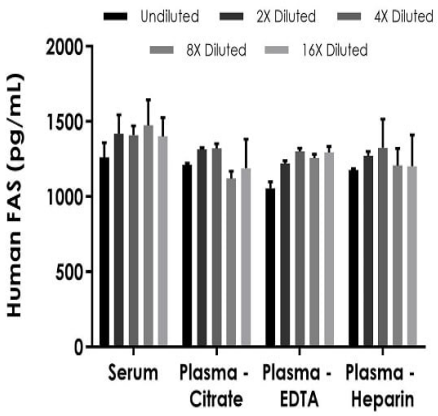
Human FAS standard curve comparison

Standard Curve comparison between the original Human FAS SimpleStep ELISA kit and current Human FAS SimpleStep ELISA kit.



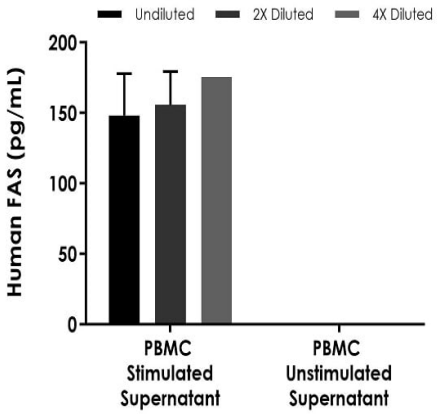
Example of human FAS standard curve in Sample Diluent NS.

The FAS 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.



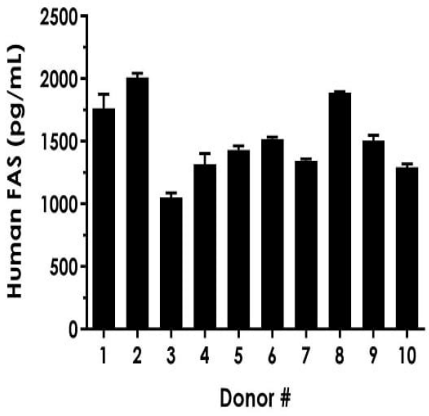
Interpolated concentrations of native FAS in human serum and plasma samples.

The concentrations of FAS were measured in duplicates, interpolated from the FAS standard curves and corrected for sample dilution. Undiluted samples are as follows: serum 50%, plasma (citrate, EDTA, heparin) 50%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean FAS concentration was determined to be 1,393 pg/mL in neat serum, 1,231 pg/mL in neat plasma (citrate) and 1,226 pg/mL in neat plasma (EDTA) and 1,237pg/mL in neat plasma (heparin).



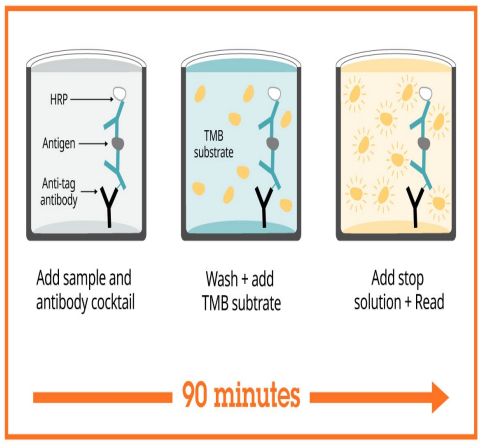
Interpolated concentrations of native FAS in human PBMC cell culture supernatant derived from cells seeded at 107 cells/mL and cultured in the presence or absence of 1.5% PHA for 36 hours.

The concentrations of FAS were measured in duplicate and interpolated from the FAS standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean FAS concentration was determined to be 157 pg/mL in neat stimulated PBMC cell culture supernatant and undetectable in unstimulated PBMC cell culture supernatant.



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

Interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean FAS concentration was determined to be 1,513 pg/mL with a range of 1,050 – 2,009 pg/mL.

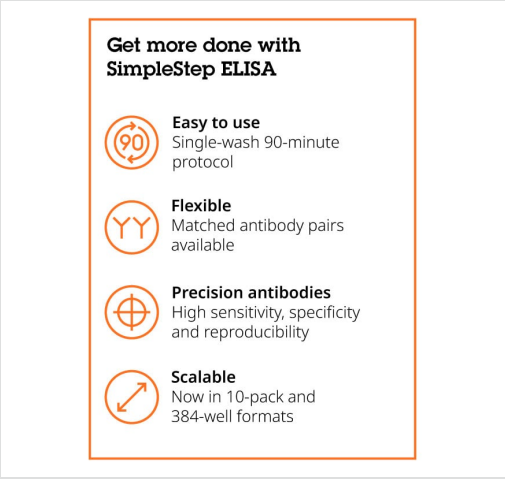


Sandwich ELISA - Human FAS ELISA Kit (ab183360)

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 FAS ELISA Kit (ab183360)

To learn more about the advantages of recombinant antibodies see **here**.



Sandwich ELISA - Human FAS ELISA Kit (ab183360)

To learn more about the advantages of SimpleStep ELISA® kits see **here**.

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