

Human Transferrin ELISA Kit ab187391

SimpleStep ELISA

5 References [画像数 9](#)

製品の概要

製品名 Human Transferrin ELISA Kit
検出方法 Colorimetric
再現性 Intra-Assay (同時再現性)

サンプル	N	平均値	SD	CV%
Overall	8			5.2%

Inter-Assay (日差再現性)

サンプル	N	平均値	SD	CV%
Overall	3			8.3%

サンプルの種類 Cell culture supernatant, Serum, Hep Plasma, EDTA Plasma, Cit plasma

アッセイタイプ Sandwich (quantitative)

検出感度 0.39 ng/ml

検出範囲 0.63 ng/ml - 40 ng/ml

添加回収試験 特定サンプルでの回収試験

サンプルの種類	平均 %	測定範囲
Serum	92	86% - 104%
Cell culture media	101	97% - 103%
Hep Plasma	114	112% - 116%
EDTA Plasma	107	95% - 115%
Cit plasma	115	104% - 121%

全工程の試験時間 1h 30m

ステップ One step assay

種交差性

交差種: Human

製品の概要

Human Transferrin ELISA Kit (ab187391) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of Transferrin protein in cell culture supernatant, cit plasma, edta plasma, hep plasma, and serum. It uses our proprietary SimpleStep ELISA® technology. Quantitate Human Transferrin with 0.39 ng/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.

ASSAY SPECIFICITY This kit recognizes both native and recombinant human Transferrin protein in serum, plasma, and cell culture supernatant samples only. Urine, saliva, and cell/tissue extract samples have not been tested with this kit.

CROSS REACTIVITY Human albumin, ferritin, and hemoglobin were prepared at 40 ng/mL and assayed for cross reactivity. No cross-reactivity was observed.

SPECIES REACTIVITY This kit recognizes human Transferrin protein.

Other species reactivity was determined by measuring 1:50,000 serum samples of various species, interpolating the protein concentrations from the human standard curve, and expressing the interpolated concentrations as a percentage of the protein concentration in human serum assayed at the same dilution. Reactivity < 3% was determined for the following species: Mouse, Rat, Cow

特記事項

Transferrins are iron binding transport proteins which can bind two Fe³⁺ ions in association with the binding of an anion, usually bicarbonate. It is responsible for the transport of iron from sites of absorption and heme degradation to those of storage and utilization. Serum transferrin may also have a further role in stimulating cell proliferation.

試験プラットフォーム

Microplate

製品の特性

保存方法

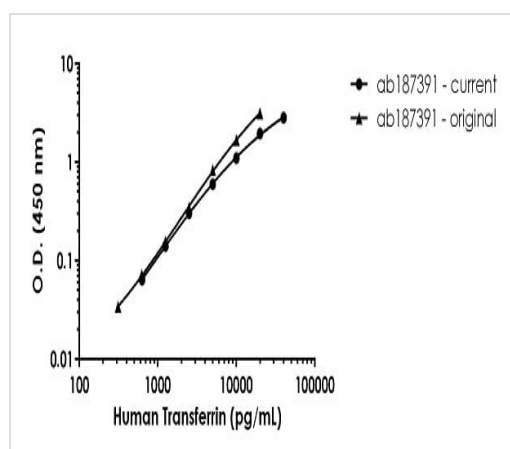
Store at +4°C. Please refer to protocols.

内容	1 x 96 tests
10X Human Transferrin Capture Antibody	1 x 600µl

内容	1 x 96 tests
10X Human Transferrin Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml
Antibody Diluent 4BI	1 x 6ml
Human Transferrin Lyophilized Purified Protein (ab91435)	2 vials
Plate Seals	1 unit
Sample Diluent NS (ab193972)	2 x 50ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit
Stop Solution	1 x 12ml
TMB Development Solution	1 x 12ml

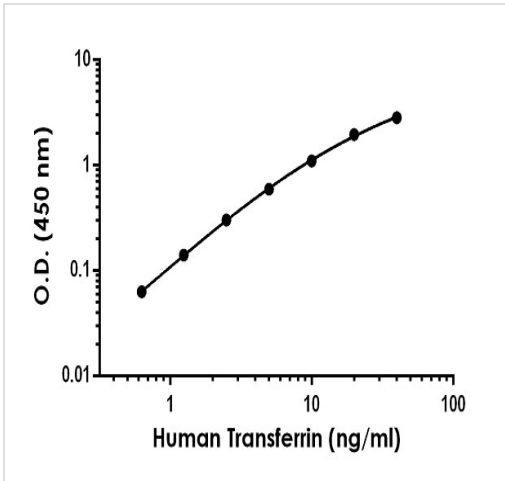
機能	Transferrins are iron binding transport proteins which can bind two Fe(3+) ions in association with the binding of an anion, usually bicarbonate. It is responsible for the transport of iron from sites of absorption and heme degradation to those of storage and utilization. Serum transferrin may also have a further role in stimulating cell proliferation.
組織特異性	Expressed by the liver and secreted in plasma.
関連疾患	Defects in TF are the cause of atransferrinemia (ATRAF) [MIM:209300]. Atransferrinemia is rare autosomal recessive disorder characterized by iron overload and hypochromic anemia.
配列類似性	Belongs to the transferrin family. Contains 2 transferrin-like domains.
細胞内局在	Secreted.

画像



Human Transferrin standard curve comparison

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



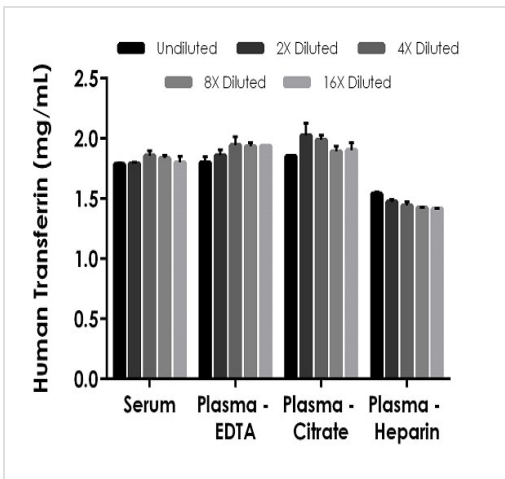
Example of human Transferrin standard curve in Sample Diluent NS.

The Transferrin 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.

Standard Curve Measurements			
Concentration (ng/ml)	O.D 450 nm		Mean O.D
	1	2	
0	0.115	0.115	0.115
0.63	0.181	0.176	0.179
1.25	0.258	0.253	0.256
2.5	0.436	0.400	0.418
5	0.746	0.678	0.712
10	1.236	1.192	1.214
20	2.105	2.043	2.074
40	2.944	2.927	2.936

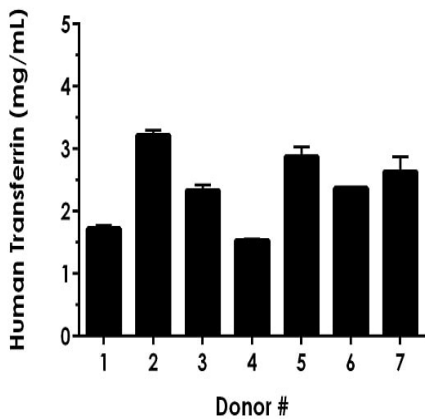
Standard curve

Example of human Transferrin standard curve in Sample Diluent NS. The Transferrin standard curve was prepared as described. Raw data values are shown in the table. Background-subtracted data values (mean +/- SD) are graphed.



Interpolated concentrations of native Transferrin in human serum and plasmas samples.

The concentrations of Transferrin were measured in duplicates, interpolated from the Transferrin standard curves and corrected for sample dilution. Undiluted samples are as follows: serum 1:50,000, plasma (EDTA) 1:50,000, plasma (citrate) 1:50,000 and plasma (heparin) 1:50,000. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean Transferrin concentration was determined to be 1.82 mg/mL in serum, 1.84 ng/mL in plasma (EDTA) and 1.86 mg/mL in plasma (citrate) and 1.43 ng/mL in plasma (heparin).



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

Interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean Transferrin concentration was determined to be 2.38 mg/mL with a range of 1.54 – 3.2 mg/mL.

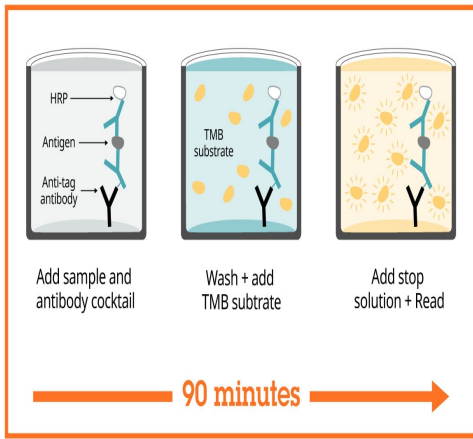
Dilution Factor	Interpolated value	1:50,000 Human Serum	1:50,000 Human Plasma (EDTA)	1:50,000 Human Plasma (Citrate)	1:50,000 Human Plasma (Heparin)	50% RPMI media
Undiluted	ng/mL	35.7	36.0	37.0	30.8	17.8
	% Expected value	100	100	100	100	100
2	ng/mL	17.9	18.6	20.3	14.7	9.25
	% Expected value	100	103	109	96	104
4	ng/mL	9.3	9.7	9.9	7.2	4.47
	% Expected value	104	108	107	94	101
8	ng/mL	4.6	4.8	4.7	3.6	2.27
	% Expected value	103	108	102	92	102
16	ng/mL	2.3	2.4	2.4	1.8	1.13
	% Expected value	101	108	103	92	102

NL - Non-Linear

Linearity of dilution.

Linearity of dilution is determined based on interpolated values from the standard curve. Linearity of dilution defines a sample concentration interval in which interpolated target concentrations are directly proportional to sample dilution.

Native Transferrin was measured in the following biological samples in a 2-fold dilution series. Sample dilutions are made in Sample Diluent NS.



Sandwich ELISA - Human Transferrin ELISA Kit
(ab187391)

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.

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 Transferrin ELISA Kit
(ab187391)

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

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

Sandwich ELISA - Human Transferrin ELISA Kit
(ab187391)

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

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

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