abcam

Product datasheet

Human Apolipoprotein AI ELISA Kit ab189576

SimpleStep ELISA

7 References　画像数 5

製品の概要

製品名 Human Apolipoprotein AI 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	5			2.1%

Inter-Assay（日差再現性）

サンプル	N	平均値	SD	CV%
Overall	3			2.9%

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 59 pg/ml

検出範囲 0.313 ng/ml - 20 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	115	111% - 122%
Tissue Culture Media	89	85% - 92%
Hep Plasma	95	76% - 111%
EDTA Plasma	112	108% - 115%
Cit plasma	119	117% - 123%

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
非交差種: Goat, Cow, Pig

製品の概要

Human Apolipoprotein AI ELISA Kit (ab189576) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of Apolipoprotein AI protein in cell culture supernatant, cit plasma, edta plasma, hep plasma, and serum. It uses our proprietary SimpleStep ELISA® technology. Quantitate Human Apolipoprotein AI with 59 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.

特記事項

Apolipoprotein AI (ApoA1) is secreted by the liver and small intestine and is a major protein of plasma HDL (high density lipoprotein). APOA-I participates in the reverse transport of cholesterol from tissues to the liver for excretion by promoting cholesterol efflux from tissues and by acting as a cofactor for the lecithin cholesterol acyltransferase (LCAT). Defects in APOA1I are associated with several diseases associated with low HDL levels (HDLD1 and HDLD2) and amyloidosis (AMYL8).

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	10 x 96 tests
10X Human APOA1 Capture Antibody	1 x 600µl	10 x 600µl
10X Human APOA1 Detector Antibody	1 x 600µl	10 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml	1 x 200ml
Antibody Diluent 5BI	1 x 6ml	10 x 6ml
Human APOA1 Lyophilized Recombinant Protein	2 vials	20 vials
Plate Seals	1 unit	10 units
Sample Diluent NS (ab193972)	1 x 50ml	2 x 250ml

内容	1 x 96 tests	10 x 96 tests
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit	10 units
Stop Solution	1 x 12ml	1 x 120ml
TMB Development Solution	1 x 12ml	1 x 120ml

機能

Participates in the reverse transport of cholesterol from tissues to the liver for excretion by promoting cholesterol efflux from tissues and by acting as a cofactor for the lecithin cholesterol acyltransferase (LCAT). As part of the SPAP complex, activates spermatozoa motility.

組織特異性

Major protein of plasma HDL, also found in chylomicrons. Synthesized in the liver and small intestine.

関連疾患

Defects in APOA1 are a cause of high density lipoprotein deficiency type 2 (HDLD2) [MIM:604091]; also known as familial hypoalphalipoproteinemia (FHA). Inheritance is autosomal dominant.
Defects in APOA1 are a cause of the low HDL levels observed in high density lipoprotein deficiency type 1 (HDLD1) [MIM:205400]; also known as analphalipoproteinemia or Tangier disease (TGD). HDLD1 is a recessive disorder characterized by the absence of plasma HDL, accumulation of cholesteryl esters, premature coronary artery disease, hepatosplenomegaly, recurrent peripheral neuropathy and progressive muscle wasting and weakness. In HDLD1 patients, ApoA-I fails to associate with HDL probably because of the faulty conversion of pro-ApoA-I molecules into mature chains, either due to a defect in the converting enzyme activity or a specific structural defect in Tangier ApoA-I.
Defects in APOA1 are the cause of amyloid polyneuropathy-nephropathy Iowa type (AMYLIOWA) [MIM:107680]; also known as amyloidosis van Allen type or familial amyloid polyneuropathy type III. AMYLIOWA is a hereditary generalized amyloidosis due to deposition of amyloid mainly constituted by apolipoprotein A1. The clinical picture is dominated by neuropathy in the early stages of the disease and nephropathy late in the course. Death is due in most cases to renal amyloidosis. Severe peptic ulcer disease can occurr in some and hearing loss is frequent. Cataracts is present in several, but vitreous opacities are not observed.
Defects in APOA1 are a cause of amyloidosis type 8 (AMYL8) [MIM:105200]; also known as systemic non-neuropathic amyloidosis or Ostertag-type amyloidosis. AMYL8 is a hereditary generalized amyloidosis due to deposition of apolipoprotein A1, fibrinogen and lysozyme amyloids. Viscera are particularly affected. There is no involvement of the nervous system. Clinical features include renal amyloidosis resulting in nephrotic syndrome, arterial hypertension, hepatosplenomegaly, cholestasis, petechial skin rash.

配列類似性

Belongs to the apolipoprotein A1/A4/E family.

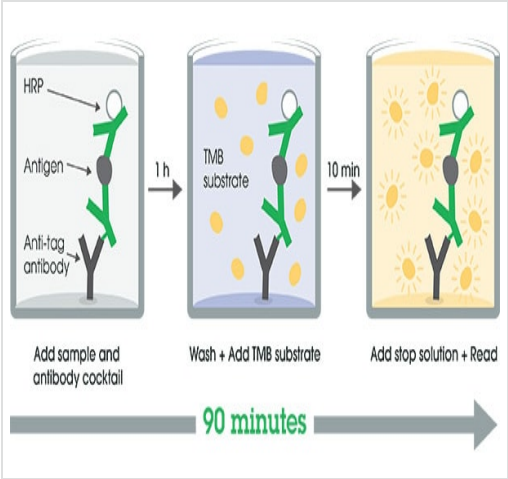
翻訳後修飾

Palmitoylated.
Phosphorylation sites are present in the extracelllular medium.

細胞内局在

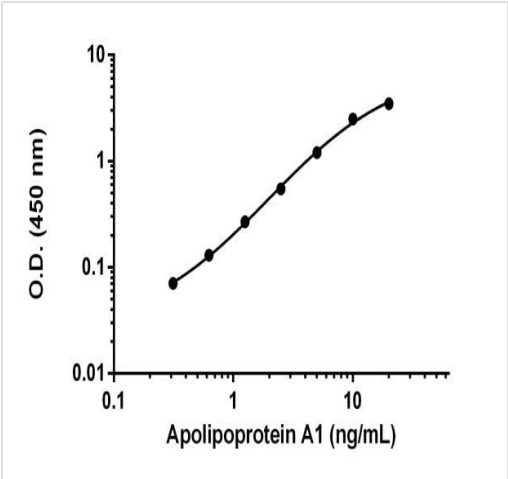
Secreted.

画像



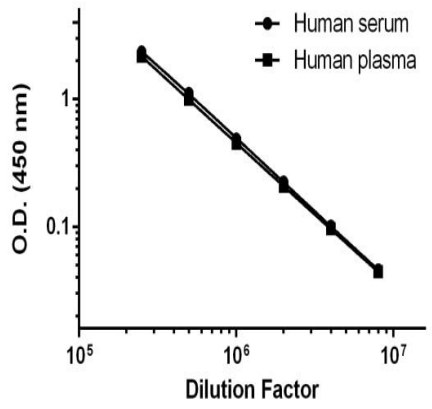
SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.

Other - Human Apolipoprotein AI ELISA Kit (ab189576)



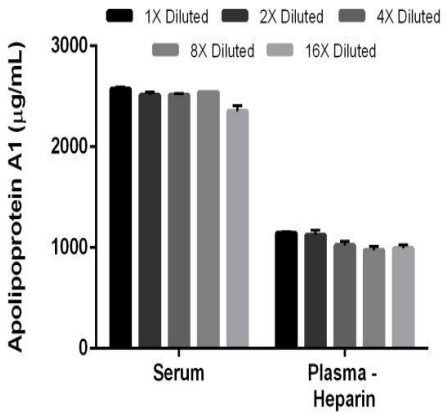
Background-subtracted data values (mean +/- SD) are graphed.

Example of Apolipoprotein A1 standard curve.



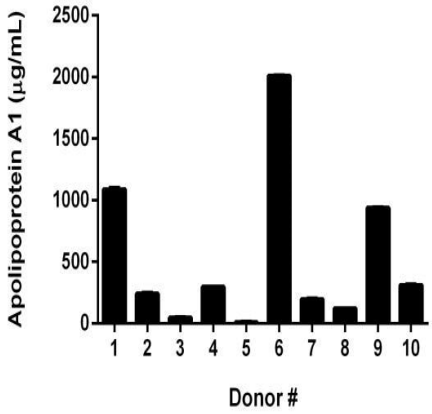
Titration of Human serum and plasma (citrate)

Human serum and plasma (citrate) diluted $2.5x10^5$ –fold to $8x10^6$ – fold in Sample Diluent NS. Background subtracted data from duplicate measurements are plotted.



Interpolated concentrations of Apolipoprotein A1 in Human serum

Interpolated concentrations of Apolipoprotein A1 in Human serum and plasma heparin. The concentrations of Apolipoprotein A1 were measured in duplicate and interpolated from the Apolipoprotein A1 standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean Apolipoprotein A1 concentration was determined to be 2500 µg/mL in serum and 1053ug/mL in plasma heparin.



Interpolated concentrations of Apolipoprotein A1 in Human serum from 10 donors.

Interpolated concentrations of Apolipoprotein A1 in Human serum from 10 donors. Serum from 10 apparently healthy male donors was measured in duplicate. The mean Apolipoprotein A1 concentration was determined to be 526 µg/mL with a range of 9.8-2011 µg/mL.

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