abcam

Product datasheet

Human HBB ELISA Kit ab235654

重组 SimpleStep ELISA

2 References 6 图像

概述

产品名称 人HBB ELISA试剂盒

检测方法 Colorimetric

精确度

批次内

样品	n	Mean	SD	CV%
Serum	8			3.6%

样品类型 Serum, Cell culture extracts, Hep Plasma, EDTA Plasma, Cit plasma

检测类型 Sandwich (quantitative)

灵敏度 34.1 pg/ml

范围 0.125 ng/ml - 8 ng/ml

回收率

特定样本回收率

样品类型	平均%	范围
Serum	102	% - %
Cell culture extracts	90	% - %
Hep Plasma	101	% - %
EDTA Plasma	107	% - %
Cit plasma	98	% - %

检测时间 1h 30m

实验步骤 One step assay

种属反应性 **与反应:** Human

产品概述 Human HBB ELISA Kit (ab235654) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of HBB protein in cell culture extracts, cit plasma, edta plasma, hep plasma, and serum. It uses our proprietary SimpleStep ELISA® technology. Quantitate Human

HBB with 34.1 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.

说明

Abcam has not and does not intend to apply for the REACH Authorisation of customers' uses of products that contain European Authorisation list (Annex XIV) substances.
It is the responsibility of our customers to check the necessity of application of REACH Authorisation, and any other relevant authorisations, for their intended uses.

平台 Pre-coated microplate (12 x 8 well strips)

性能

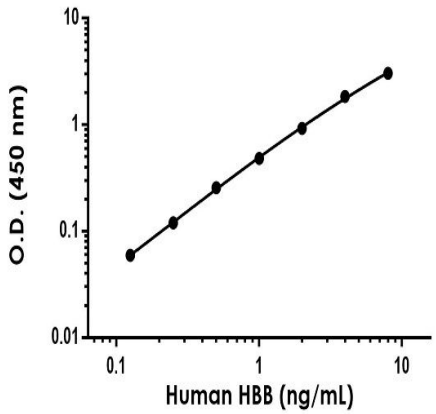
存放说明 Store at +4°C. Please refer to protocols.

组件	1 x 96 tests
10X Human HBB Capture Antibody	1 x 600µl
10X Human HBB Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml
50X Cell Extraction Enhancer Solution (ab193971)	1 x 1ml
5X Cell Extraction Buffer PTR (ab193970)	1 x 10ml
Antibody Diluent 4BI	1 x 6ml
Human HBB 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

组件	1 x 96 tests
TMB Development Solution	1 x 12ml

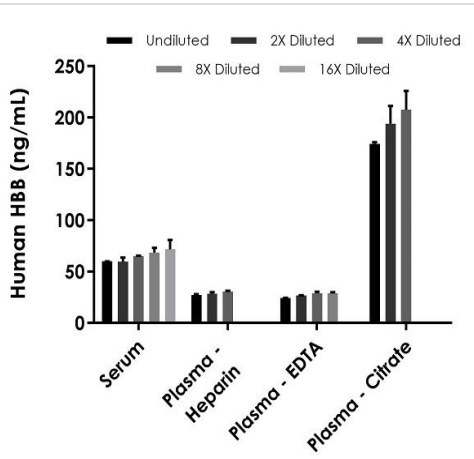
功能	Involved in oxygen transport from the lung to the various peripheral tissues.
组织特异性	Red blood cells.
疾病相关	Defects in HBA1/HBA2 may be a cause of Heinz body anemias (HEIBAN) [MIM:140700]. This is a form of non-spherocytic hemolytic anemia of Dacie type 1. After splenectomy, which has little benefit, basophilic inclusions called Heinz bodies are demonstrable in the erythrocytes. Before splenectomy, diffuse or punctate basophilia may be evident. Most of these cases are probably instances of hemoglobinopathy. The hemoglobin demonstrates heat lability. Heinz bodies are observed also with the Ivemark syndrome (asplenia with cardiovascular anomalies) and with glutathione peroxidase deficiency. Defects in HBA1/HBA2 are the cause of alpha-thalassemia (A-THAL) [MIM:604131]. The thalassemias are the most common monogenic diseases and occur mostly in Mediterranean and Southeast Asian populations. The hallmark of alpha-thalassemia is an imbalance in globin-chain production in the adult HbA molecule. The level of alpha chain production can range from none to very nearly normal levels. Deletion of both copies of each of the two alpha-globin genes causes alpha(0)-thalassemia, also known as homozygous alpha thalassemia. Due to the complete absence of alpha chains, the predominant fetal hemoglobin is a tetramer of gamma-chains (Bart hemoglobin) that has essentially no oxygen carrying capacity. This causes oxygen starvation in the fetal tissues leading to prenatal lethality or early neonatal death. The loss of three alpha genes results in high levels of a tetramer of four beta chains (hemoglobin H), causing a severe and life-threatening anemia known as hemoglobin H disease. Untreated, most patients die in childhood or early adolescence. The loss of two alpha genes results in mild alpha-thalassemia, also known as heterozygous alpha-thalassemia. Affected individuals have small red cells and a mild anemia (microcytosis). If three of the four alpha-globin genes are functional, individuals are completely asymptomatic. Some rare forms of alpha-thalassemia are due to point mutations (non-deletional alpha-thalassemia). The thalassemic phenotype is due to unstable globin alpha chains that are rapidly catabolized prior to formation of the alpha-beta heterotetramers. Note=Alpha(0)-thalassemia is associated with non-immune hydrops fetalis, a generalized edema of the fetus with fluid accumulation in the body cavities due to non-immune causes. Non-immune hydrops fetalis is not a diagnosis in itself but a symptom, a feature of many genetic disorders, and the end-stage of a wide variety of disorders.
序列相似性	Belongs to the globin family.
翻译后修饰	The initiator Met is not cleaved in variant Thionville and is acetylated.

图片



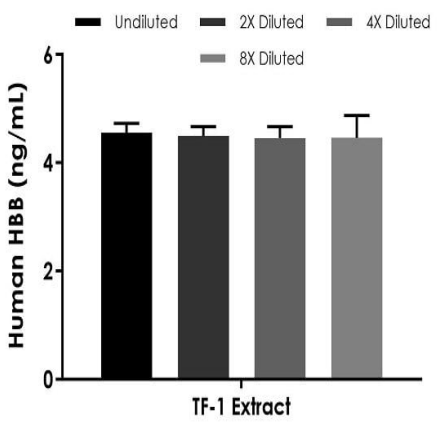
Example of human HBB standard curve in Sample Diluent NS

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



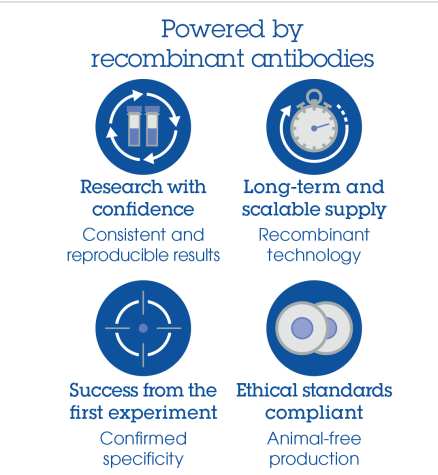
Interpolated concentrations of native HBB in human serum and plasma samples

The concentrations of HBB were measured in duplicates, interpolated from the HBB standard curves and corrected for sample dilution. Undiluted samples are as follows: serum 12.5%, plasma (heparin) 5%, plasma (EDTA) 25% and plasma (citrate) 3.13% The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean HBB concentration was determined to be 64.9 ng/mL in serum, 28.6 ng/mL in plasma (heparin), 27.1 ng/mL in plasma (EDTA) and 192.2 ng/mL in plasma (citrate).



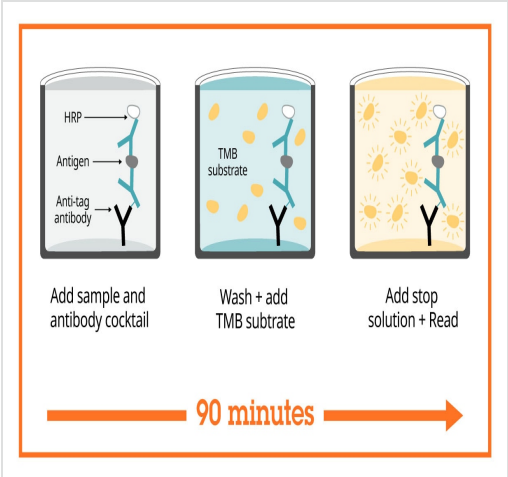
Interpolated concentrations of native HBB in TF-1 Extract based on a 37.5 µg/mL extract load

The concentrations of HBB were measured in duplicate and interpolated from the HBB standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean HBB concentration was determined to be 4.5 ng/mL in TF-1 extract.



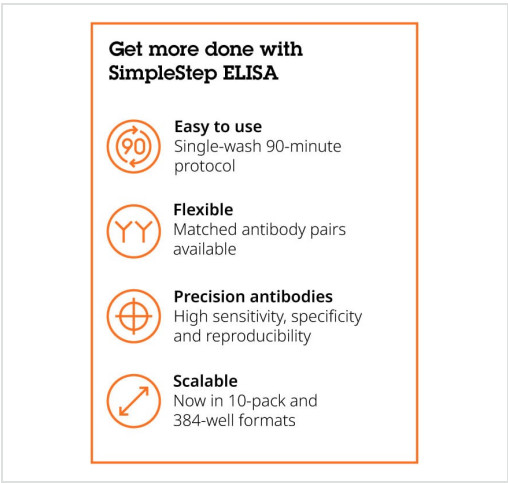
Sandwich ELISA - Human HBB ELISA Kit (ab235654)

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



Sandwich ELISA - Human HBB ELISA Kit (ab235654)

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 HBB ELISA Kit (ab235654)

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

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