

Human Angiogenin ELISA Kit ab219629

重组 SimpleStep ELISA

8 图像

概述

产品名称	人Angiogenin ELISA试剂盒				
检测方法	Colorimetric				
精确度	批次内				
	样品	n	Mean	SD	CV%
	Serum	8			4.2%
	批次间				
	样品	n	Mean	SD	CV%
	Serum	3			5.6%
样品类型	Cell culture supernatant, Serum, Cell culture extracts, Cell culture media, Hep Plasma, EDTA Plasma, Cit plasma				
检测类型	Sandwich (quantitative)				
灵敏度	1.06 pg/ml				
范围	7.81 pg/ml - 500 pg/ml				
回收率	特定样本回收率				

样品类型	平均 %	范围
Cell culture supernatant	110	108% - 113%
Serum	103	99% - 106%
Cell culture extracts	101	99% - 103%
Cell culture media	104	100% - 107%
Hep Plasma	103	96% - 109%
EDTA Plasma	100	96% - 102%

样品类型	平均%	范围
Cit plasma	101	97% - 105%

#### 检测时间

1h 30m

#### 实验步骤

One step assay

#### 种属反应性

**与反应:** Human

**不与反应:** Cow

#### 产品概述

Human Angiogenin ELISA Kit (ab219629) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of Angiogenin protein in cell culture extracts, cell culture supernatant, cit plasma, edta plasma, hep plasma, serum, and cell culture media. It uses our proprietary SimpleStep ELISA® technology. Quantitate Human Angiogenin with 1.06 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

Angiogenin is a member of the ribonuclease superfamily with approximately 35% amino acid sequence homology with pancreatic RNase. Angiogenin can act to inhibit protein synthesis by functioning as a cytotoxic tRNA-specific RNase.

Cells expressing Angiogenin include vascular endothelial and smooth muscle cells, fibroblasts, colonic epithelium, peripheral blood lymphocytes, lung cell lines, and primary gastrointestinal adenocarcinomas. Basal levels of Angiogenin are also present in normal human serum and plasma. Angiogenin has been reported to serve as protection for motor neurons and it follows that Angiogenin is associated with neurological diseases, specifically, mutations to this gene are linked to Amyotrophic Lateral Sclerosis (ALS). Human and mouse Angiogenin share 74% homology in amino acid sequence.

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 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 CPI - HAMA Blocker (ab193969)	1 x 6ml
10X Human Angiogenin Capture Antibody	1 x 600µl
10X Human Angiogenin Detector Antibody	1 x 600µl
Human Angiogenin 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

**功能**

May function as a tRNA-specific ribonuclease that abolishes protein synthesis by specifically hydrolyzing cellular tRNAs. Binds to actin on the surface of endothelial cells; once bound, angiogenin is endocytosed and translocated to the nucleus. Angiogenin induces vascularization of normal and malignant tissues. Angiogenic activity is regulated by interaction with RNH1 in vivo.

**组织特异性**

Expressed predominantly in the liver. Also detected in endothelial cells and spinal cord neurons.

**疾病相关**

Defects in ANG are the cause of susceptibility to amyotrophic lateral sclerosis type 9 (ALS9) [MIM:611895]. ALS is a degenerative disorder of motor neurons in the cortex, brain stem and spinal cord. ALS is characterized by muscular weakness and atrophy.

**序列相似性**

Belongs to the pancreatic ribonuclease family.

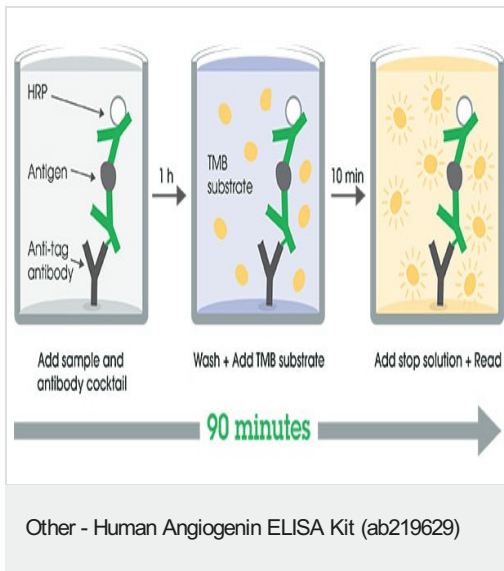
**发展阶段**

Low level expression in the developing fetus, increased in the neonate, and maximal in the adult.

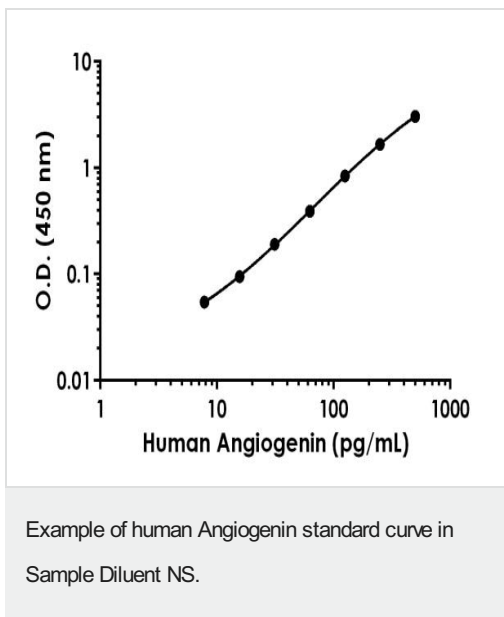
**细胞定位**

Secreted.

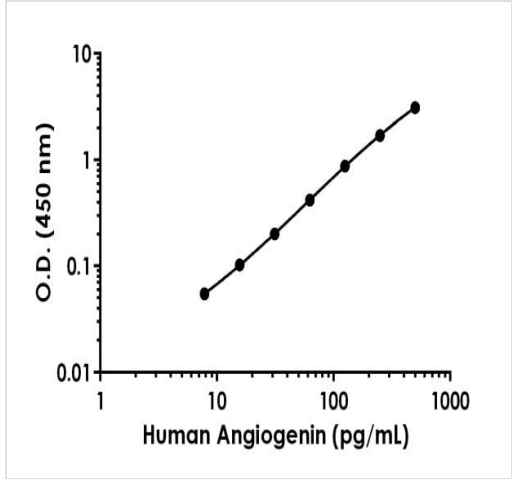
**图片**



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.

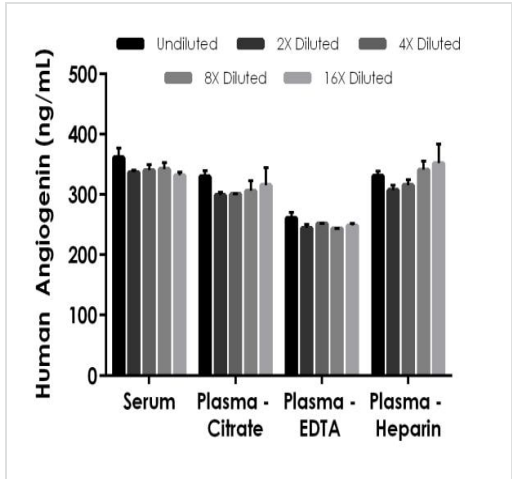


Background-subtracted data values (mean  $\pm$  SD) are graphed.



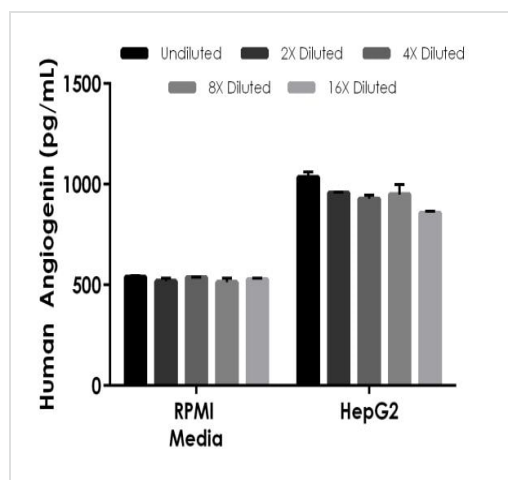
Background-subtracted data values (mean +/- SD) are graphed.

Example of human Angiogenin standard curve in Sample Diluent 1X Cell Extraction Buffer PTR.



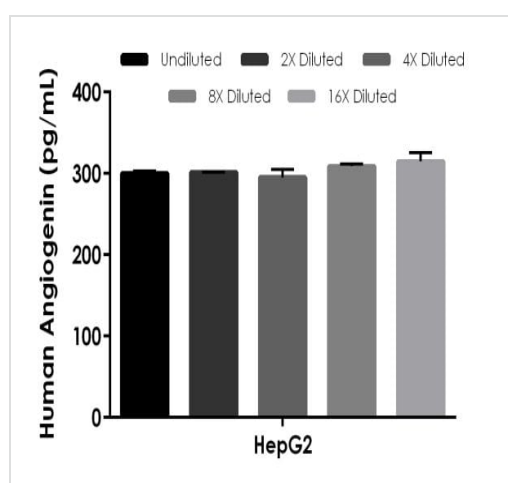
The concentrations of Angiogenin were measured in duplicates, interpolated from the Angiogenin standard curves and corrected for sample dilution. Undiluted samples are as follows: serum 1:1,000, plasma (citrate) 1:1,000, plasma (EDTA) 1:1,000, and plasma (heparin) 1:1,000. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean Angiogenin concentration was determined to be 342.53 ng/mL in neat serum, 310.16 ng/mL in neat plasma (citrate), 249.90 ng/mL in neat plasma (EDTA), and 329.36 ng/mL in neat plasma (heparin).

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



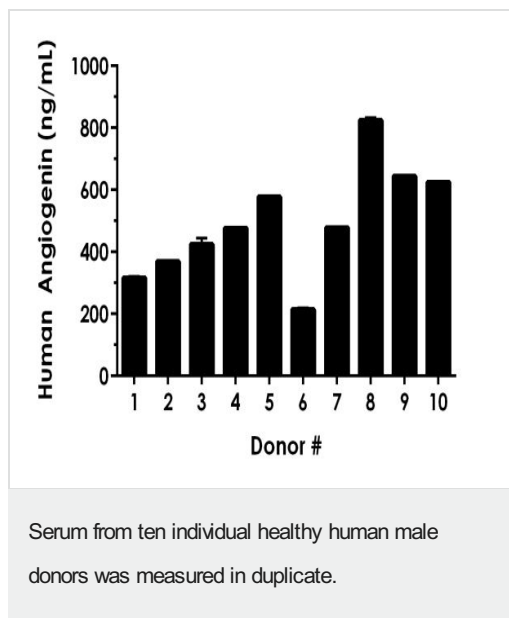
Interpolated concentrations of spiked Angiogenin in RPMI culture media and native Angiogenin in HepG2 cell culture supernatant samples.

The concentrations of Angiogenin were measured in duplicates, interpolated from the Angiogenin standard curves and corrected for sample dilution. Undiluted samples are as follows: RPMI culture media 50% and HepG2 supernatant 25%. The interpolated dilution factor corrected values are plotted (mean  $\pm$  SD,  $n=2$ ). The mean Angiogenin concentration was determined to be 527.60 pg/mL in neat, spiked RPMI culture media. The mean Angiogenin concentration was determined to be 945.93 pg/mL in neat, native HepG2 supernatant.



Interpolated concentrations of native Angiogenin in HepG2 cell extract sample based on a 62.5  $\mu$ g/mL extract load.

The concentrations of Angiogenin were measured in duplicate and interpolated from the Angiogenin standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted (mean  $\pm$  SD,  $n=2$ ). The mean Angiogenin concentration was determined to be 304.03 pg/mL in HepG2 cell extract sample.



Interpolated dilution factor corrected values are plotted (mean  $\pm$  SD,  $n=2$ ). The mean Angiogenin concentration was determined to be 495.29 ng/mL with a range of 214.57 – 824.72 ng/mL.

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 Angiogenin ELISA Kit  
(ab219629)

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

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

#### Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours

- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.cn/abpromise> or contact our technical team.

#### **Terms and conditions**

---

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors