# abcam

# Product datasheet

# Human elF4E ELISA Kit (pS209) ab277087

重组 SimpleStep ELISA

4 图像

概述

精确度

产品名称 人eIF4E ELISA试剂盒(pS209)

检测方法 Colorimetric

样品	n	Mean	SD	CV%
Extract	8			4.5%

批次间

特定样本回收率

批次内

样品	n	Mean	SD	CV%
Extract	3			6.6%

样品类型 Cell Lysate

检测类型 Sandwich (quantitative)

灵敏度 51 pg/ml

范围 234.38 pg/ml - 15000 pg/ml

回收率

样品类型	平均%	范围
Cell Lysate	104	96% - 107%

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 elF4E ELISA kit (ab277087) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of Human elF4E protein in human cell extract. It uses our proprietary

SimpleStep ELISA® technology. Quantitate Human eIF4E with 51 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 (<u>ab203359</u>) is available to use as an alternative to the 96-well microplate provided with SimpleStep ELISA® kits.

eIF-4E, Eukaryotic translation initiation factor 4E, and its complex components bind mRNA on its 7-methylguanosine-containing capped end and facilitate ribosomal interaction. This binding is the rate-limiting step to eukaryotic protein synthesis. Phosphorylation of serine-209 leads to a much tighter binding and increased protein synthesis. Upregulation of this protein has been shown to be associated with many forms of cancer. Antibodies for this kit were raised against non-modified full-length eIF-4E as well as a phosphorylated protein fragment encompassing the serine-209 site. This protein shares homology across Mammalia, and therefore may cross-react with many species. The protein standard in this product is recombinant human eIF-4E ligated with peptide containing phosphorylated Serine 209.

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.

Pre-coated microplate (12 x 8 well strips)

平台

说明

### 性能

#### 存放说明

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

组 <b>件</b>	1 x 96 tests
10X Human eIF4E (pS209) Capture Antibody	1 x 600µl
10X Human eIF4E (pS209) Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml
5X Cell Extraction Buffer PTR (ab193970)	1 x 10ml
Antibody Diluent CPI2	1 x 6ml
Human elF4E (pS209) Lyophilized Recombinant Protein	2 vials
Plate Seals	1 unit
Sample Diluent NS (ab193972)	1 x 12ml
	'

组 <b>件</b>	1 x 96 tests
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit
Stop Solution	1 x 12ml
TMB Development Solution	1 x 12ml

#### 功能

Its translation stimulation activity is repressed by binding to the complex CYFIP1-FMR1 (By similarity). Recognizes and binds the 7-methylguanosine-containing mRNA cap during an early step in the initiation of protein synthesis and facilitates ribosome binding by inducing the unwinding of the mRNAs secondary structures. Component of the CYFIP1-EIF4E-FMR1 complex which binds to the mRNA cap and mediates translational repression. In the CYFIP1-EIF4E-FMR1 complex this subunit mediates the binding to the mRNA cap.

## 序列相似性

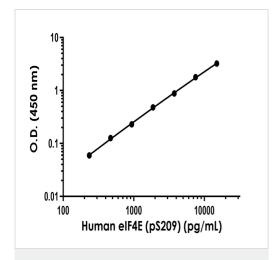
Belongs to the eukaryotic initiation factor 4E family.

#### 翻译后修饰

Phosphorylation increases the ability of the protein to bind to mRNA caps and to form the eIF4F

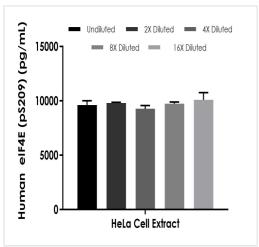
complex.

#### 图片



Example of human eIF4E (pS209) standard curve in 1X Cell Extraction Buffer PTR.

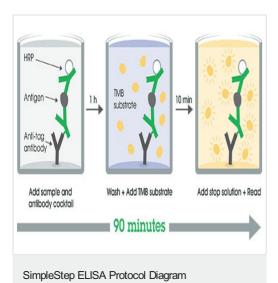
Example of human eIF4E (pS209) standard curve. Background-subtracted data values (mean +/- SD) are graphed.



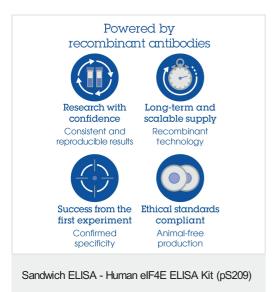
Interpolated concentrations of human eIF4E (pS209)

in HeLa cell extract.

Interpolated concentration of native eIF4E (pS209) was measured in duplicate at different sample concentrations. Undiluted samples are 20  $\mu$ g/mL HeLa cell extract. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). Sample dilutions are made in 1X Cell Extraction Buffer PTR.



SimpleStep ELISA technology allows the formation of the antibodyantigen 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.



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

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