


# AKT1 + AKT2 + AKT3 (pS473) ELISA Kit ab176635

SimpleStep ELISA

3 References 7 图像

概述

产品名称	AKT1 + AKT2 + AKT3 (pS473) ELISA试剂盒			
检测方法	Colorimetric			
精确度	批次内			
	样品	n	Mean	SD
	HEK lysate	6		CV% = 5.4%
	批次间			
	样品	n	Mean	SD
	HEK lysate	3		CV% = 2.7%
样品类型	Cell Lysate, Tissue Homogenate			
检测类型	Semi-quantitative			
灵敏度	30 pg/ml			
范围	1 ng/ml - 100 ng/ml			
回收率	4.2 %			
检测时间	1h 30m			
实验步骤	One step assay			
种属反应性	与反应: Mouse, Human			
	预测可用于: Rat 			

**产品概述**

Abcam's AKT 1/2/3 (pS473) *in vitro* SimpleStep ELISA™ (Enzyme-Linked Immunosorbent Assay) kit is designed for the semi-quantitative measurement of AKT 1/2/3 (pS473) protein in Human and mouse cells.

The SimpleStep ELISA™ employs an affinity tag labeled capture antibody and a reporter conjugated detector antibody which immunocapture the sample analyte in solution. This entire complex (capture antibody/analyte/detector antibody) is in turn immobilized via immunoaffinity of an anti-tag antibody coating the well. To perform the assay, samples or standards are added to the wells, followed by the antibody mix. After incubation, the wells are washed to remove unbound

material. TMB substrate is added and during incubation is catalyzed by HRP, generating blue coloration. This reaction is then stopped by addition of Stop Solution completing any color change from blue to yellow. Signal is generated proportionally to the amount of bound analyte and the intensity is measured at 450 nm. Optionally, instead of the endpoint reading, development of TMB can be recorded kinetically at 600 nm.

**As of October 2019, this kit was reformulated with new antibodies to maintain continued long term supply.**

#### 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

Microplate

#### 性能

#### 存放说明

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

组件	1 x 96 tests
10X Wash Buffer PT	1 x 15ml
50X Cell Extraction Enhancer Solution	1 x 1ml
5X Cell Extraction Buffer PTR	1 x 12ml
AKT 1/2/3 (pS473) Capture Antibody	1 x 3ml
AKT 1/2/3 (pS473) Detector Antibody	1 x 3ml
Lyophilized AKT Control Lysate	1 vial
Plate Seal	1 unit
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit
Stop Solution	1 x 12ml
TMB Substrate	1 x 12ml

#### 功能

IGF-1 leads to the activation of AKT3, which may play a role in regulating cell survival. Capable of phosphorylating several known proteins. Truncated isoform 2/PKB gamma 1 without the second serine phosphorylation site could still be stimulated but to a lesser extent.

#### 组织特异性

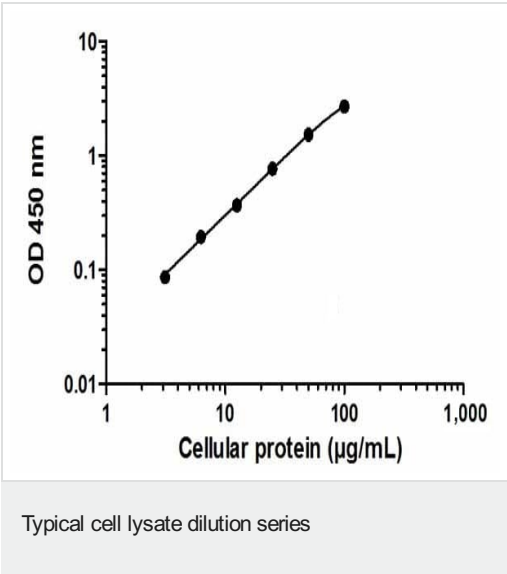
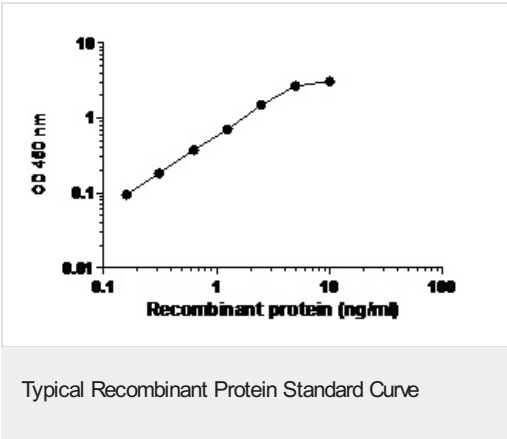
In adult tissues, it is highly expressed in brain, lung and kidney, but weakly in heart, testis and liver. In fetal tissues, it is highly expressed in heart, liver and brain and not at all in kidney.

#### 序列相似性

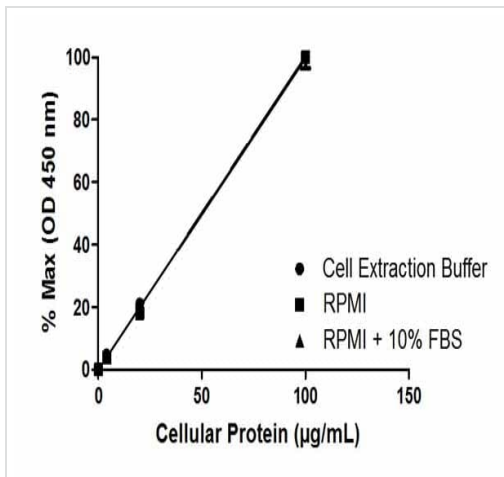
Belongs to the protein kinase superfamily. AGC Ser/Thr protein kinase family. RAC subfamily.  
Contains 1 AGC-kinase C-terminal domain.  
Contains 1 PH domain.  
Contains 1 protein kinase domain.

结构域	Binding of the PH domain to the phosphatidylinositol 3-kinase alpha (PI(3)K) results in its targeting to the plasma membrane.
翻译后修饰	Phosphorylation on Thr-305 and Ser-472 is required for full activity (By similarity). Phosphorylated upon DNA damage, probably by ATM or ATR. Ubiquitinated. When fully phosphorylated and translocated into the nucleus, undergoes 'Lys-48'-polyubiquitination catalyzed by TTC3, leading to its degradation by the proteasome.
细胞定位	Cytoplasm. Membrane. Membrane-associated after cell stimulation leading to its translocation.

图片

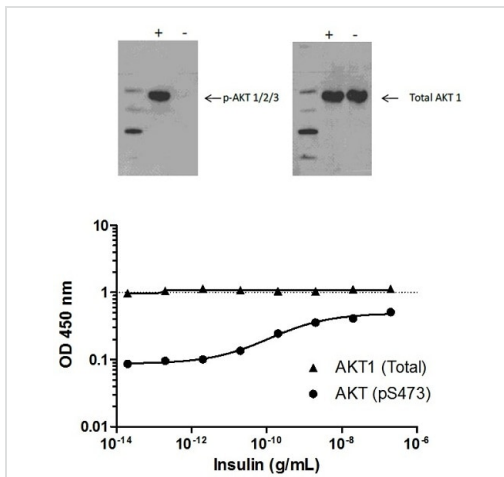


Example of a typical AKT (pS473) cell lysate dilution series.  
Background-subtracted data values (mean +/- SD) are graphed.



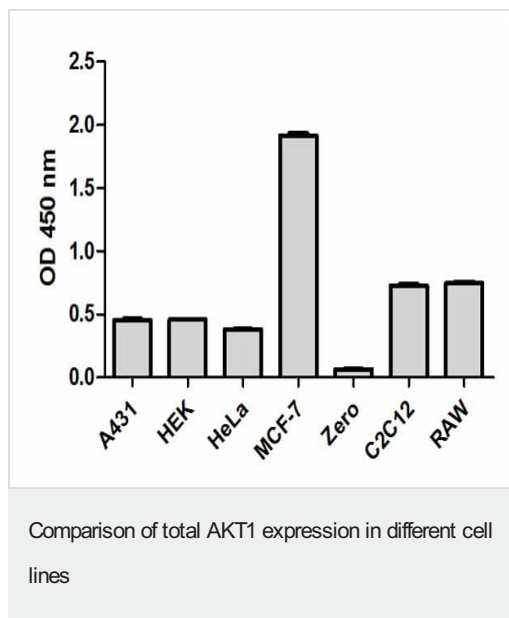
Linearity of dilution

Linearity of dilution in representative sample matrices. Cellular lysates were prepared at 3 concentrations in common media containing 1X Cell Extraction Buffer PTR. Data from duplicate measurements of AKT1 (pS473) are normalized and plotted.

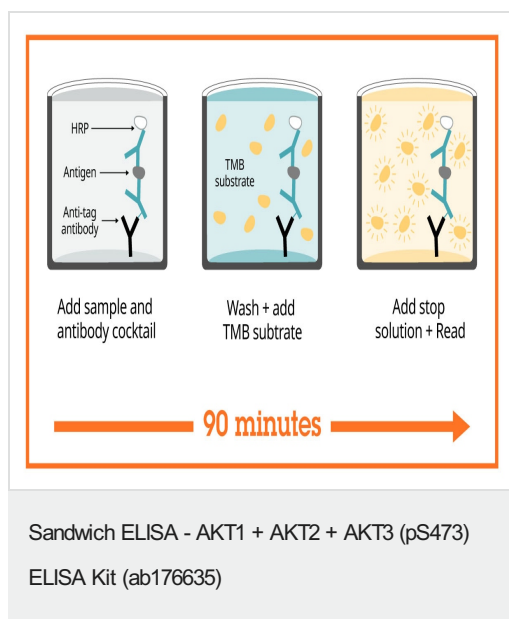


AKT (pS473) phosphorylation in response to insulin treatment.

Induction of AKT (pS473) phosphorylation in MCF-7 cells in response to insulin treatment. MCF-7 cells were cultured in 96-well tissue culture plates, serum-starved and treated (5 min) with a dose-range of insulin before cell lysis. Data from quadruplicate measurements of AKT (pS473) are plotted and compared against total AKT1 protein levels. Comparative AKT (pS473) and AKT1 (Total) data also shown by Western Blot.



Cell line analysis for total AKT1 from 20 µg/mL preparations of cell extracts. Data from triplicate measurements (mean  $\pm$  SD) are plotted and compared to 1X Cell Extraction Buffer PTR (zero).



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.

**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

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

Sandwich ELISA - AKT1 + AKT2 + AKT3 (pS473)  
ELISA Kit (ab176635)

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