abcam

Product datasheet

Mouse PP2A-alpha ELISA Kit ab209878

重组 SimpleStep ELISA

5 图像

概述

产品名称 小鼠PP2A-alpha ELISA试剂盒

检测方法 Colorimetric

精确度

样品	n	Mean	SD	CV%
Cell extract	8			5.5%

批次间

特定样本回收率

批次内

样品	n	Mean	SD	CV%
Cell extract	5			7.3%

样品类型 Cell culture extracts, Tissue Extracts, Tissue Homogenate

检测类型 Sandwich (quantitative)

灵敏度 66.2 pg/ml

范围 85.9 pg/ml - 5500 pg/ml

回收率

样 品类型	平均%	范围
Cell culture extracts	102	98% - 106%
Tissue Extracts	97	92% - 100%

检测时间 1h 30m

实验步骤 One step assay 种属反应性 与反应: Mouse

产品概述 Mouse PP2A-alpha ELISA Kit (ab209878) is a single-wash 90 min sandwich ELISA designed for

> the quantitative measurement of PP2A-alpha protein in tissue extracts, tissue homogenate, and cell culture extracts. It uses our proprietary SimpleStep ELISA® technology. Quantitate Mouse

PP2A-alpha with 66.2 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.

PP2A-alpha is a highly conserved heterotrimeric phosphatase for microtubule-associated proteins. Additionally, PP2A-alpha targets include proteins in oncogenic signalling cascades, including AKT, MEK and Raf.

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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 件	1 x 96 tests
10X Mouse PP2A-alpha Capture Antibody	1 x 600µl
10X Mouse PP2A-alpha 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 CPI2	1 x 6ml
Mouse PP2A-alpha Lyophilized Recombinant Protein	2 vials
Plate Seal	1 unit
Sample Diluent NS (ab193972)	1 x 12ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit

组 件	1 x 96 tests
Stop Solution	1 x 12ml
TMB Development Solution	1 x 12ml

功能

PP2A can modulate the activity of phosphorylase B kinase casein kinase 2, mitogen-stimulated S6 kinase, and MAP-2 kinase. Cooperates with SGOL2 to protect centromeric cohesin from separase-mediated cleavage in oocytes specifically during meiosis I (By similarity). Can dephosphorylate SV40 large T antigen and p53/TP53. Dephosphorylates SV40 large T antigen, preferentially on serine residues 120, 123, 677, and perhaps 679. The C subunit was most active, followed by the AC form, which was more active than the ABC form, and activity of all three forms was strongly stimulated by manganese, and to a lesser extent by magnesium. Dephosphorylation by the AC form, but not C or ABC form is inhibited by small T antigen.

序列相似性

Belongs to the PPP phosphatase family. PP-1 subfamily.

翻译后修饰

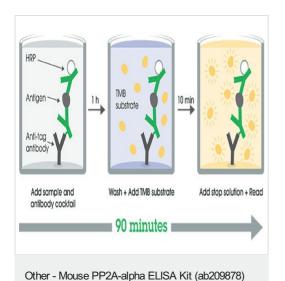
Reversibly methyl esterified on Leu-309. Carboxyl methylation may play a role in holoenzyme assembly. It varies during the cell cycle.

Phosphorylation of either threonine (by autophosphorylation-activated protein kinase) or tyrosine results in inactivation of the phosphatase. Auto-dephosphorylation has been suggested as a mechanism for reactivation.

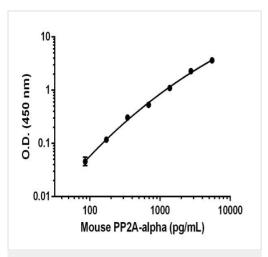
细胞定位

Cytoplasm. Nucleus. Chromosome > centromere. Cytoplasm > cytoskeleton > spindle pole. In prometaphase cells, but not in anaphase cells, localizes at centromeres. During mitosis, also found at spindle poles. Centromeric localization requires the presence of SGOL2.

图片

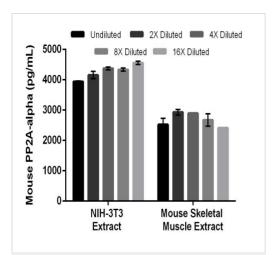


SimpleStep ELISA technology allows the formation of the antibodyantigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.



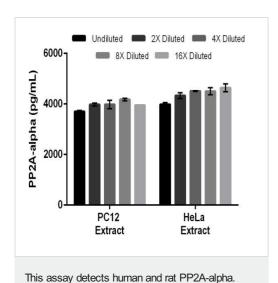
Background-subtracted data values (mean +/- SD) are graphed.

Example of mouse PP2A-alpha standard curve in 1X Cell Extraction Buffer PTR.

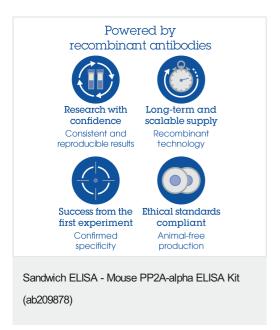


Interpolated concentrations of native PP2A in mouse NIH-3T3 extract based on a 12 µg/mL extract load and mouse skeletal muscle extract based on a 20 µg/mL extract load.

The concentrations of PP2A-alpha were measured in duplicate and interpolated from the PP2A-alpha standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean PP2A-alpha concentration was determined to be 4,273 pg/mL in NIH-3T3 extract and 2,719 pg/mL in mouse skeletal muscle extract.



The concentrations of PP2A-alpha in PC12 and HeLa extract were measured in duplicate, interpolated from the mouse PP2A-alpha standard curves and corrected for sample dilution. Undiluted samples are PC12 and HeLa extract based on a 10 μ g/mL extract load. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean PP2A-alpha concentration was determined to be 4,956 pg/mL in PC12 extract and 4,395 pg/mL in HeLa extract.



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

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