abcam

Product datasheet

Anti-AKT2 antibody [4H7] ab175354

16 References 9 图像

概述

产品名称	Anti-AKT2抗体[4H7]
描述	小鼠单克隆抗体[4H7] to AKT2
宿主	Mouse
经测试应用	**适用于:** ICC/IF, ChIP, IP, IHC-P, WB
种属反应性	**与反应:** Mouse, Rat, Human, African green monkey **预测可用于:** Non human primates
免疫原	Recombinant full length protein corresponding to Human AKT2 aa 1-481. (NP_001617) produced in HEK293T cell. Sequence: MNEVSVIKEGWLHKRGEYIKTWRPRYFLLKSDGSFIGYKERP EAPDQTLP PLNNFSVAECQLMKTERPRPNTFVIRCLQWTTVIERTFHVDS PDEREEWM RAIQMVANSLKQRAPGEDPMDYKCGSPSDSSTTEEMEVAVSK ARAKVTMN DFDYLKLLGKGTFGKVILVREKATGRYYAMKILRKEVIIAKD EVAHTVTE SRVLQNTRHPFLTALKYAFQTHDRLCFVMEYANGGELFFHLS RERVFTEE RARFYGAEIVSALEYLHSRDVVYRDIKLENLMLDKDGHIKIT DFGLCKEG ISDGATMKTFCGTPEYLAPEVLEDNDYGRAVDWWGLGVVMYE MMCGRL PFYNQDHERLFELILMEEIRFPRTLSPEAKSLLAGLLKKDPK QRLGGGPS DAKEVMEHRFFLSINWQDVVQKKLLPPFKPQVTSEVDTRYFD DEFTAQSI TITPPDRYDSLGLLELDQRTHFPQFSYSASIRE Database link: **P31751** Run BLAST with Run BLAST with
阳性对照	MCF7, HeLa, HepG2, A549, 293T, Jurkat, A431, U2OS, COS7, 3T3 L1 and NRK whole celll lysates; AKT2 transfected U2OS cells; Human Medulla Oblongata tissue; Human Esophageal cancer tissue.
常规说明	The Life Science industry has been in the grips of a reproducibility crisis for a number of years.

Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

性能

形式	Liquid
存放说明	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
存储溶液	Preservative: 0.05% Sodium azide Constituents: 0.1% BSA, 69% PBS, 30% Glycerol (glycerin, glycerine)
纯度	Protein A purified
克隆	单克隆
克隆编号	4H7
同种型	IgG1

应用

The Abpromise guarantee Abpromise™承诺保证使用ab175354于以下的经测试应用

"应用说明"部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
ICC/IF		1/10 - 1/100.
ChIP		Use at an assay dependent concentration.
IP		Use at an assay dependent concentration. Use 2µg.
IHC-P		1/200. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
WB		1/1000. Predicted molecular weight: 55 kDa.

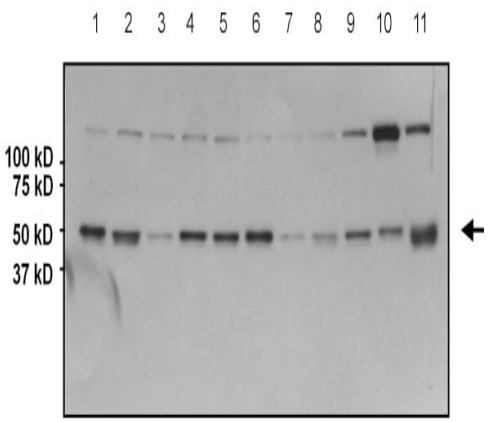
靶标

功能	General protein kinase capable of phosphorylating several known proteins.
组织特异性	Expressed in all human cell types so far analyzed.
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.

翻译后修饰

Phosphorylation on Thr-309 and Ser-474 is required for full activity.
Ubiquitinated; undergoes both 'Lys-48'- and 'Lys-63'-linked polyubiquitination. TRAF6-induced 'Lys-63'-linked AKT2 ubiquitination. When fully phosphorylated and translocated into the nucleus, undergoes 'Lys-48'-polyubiquitination catalyzed by TTC3, leading to its degradation by the proteasome.

图片



Western blot - Anti-AKT2 antibody [4H7] (ab175354)

All lanes : Anti-AKT2 antibody [4H7] (ab175354) at 1/1000 dilution

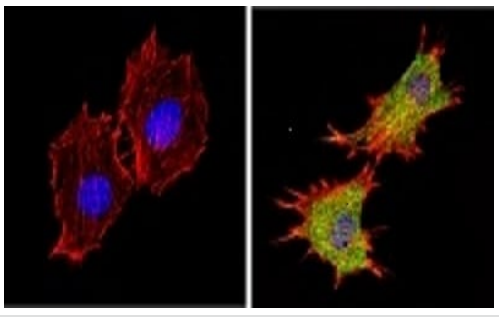
Lane 1 : MCF7 whole cell lysate
Lane 2 : HeLa whole cell lysate
Lane 3 : HepG2 whole cell lysate
Lane 4 : A549 whole cell lysate
Lane 5 : 293T whole cell lysate
Lane 6 : Jurkat whole cell lysate
Lane 7 : A431 whole cell lysate
Lane 8 : U2OS whole cell lysate
Lane 9 : COS7 whole cell lysate
Lane 10 : 3T3 L1 whole cell lysate
Lane 11 : NRK whole cell lysate

Lysates/proteins at 25 µg per lane.

Secondary
All lanes : goat anti-mouse-HRP at 1/20000 dilution

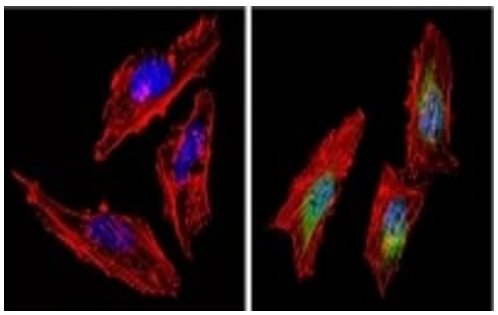
Developed using the ECL technique.

Predicted band size: 55 kDa



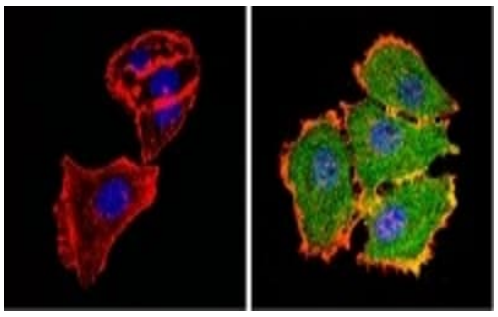
Immunocytochemistry/ Immunofluorescence - Anti-AKT2 antibody [4H7] (ab175354)

Immunofluorescent analysis of AKT2 (green) showing staining in the cytoplasm and nucleus of C2C12 cells (right) compared to a negative control without primary antibody (left). Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with an AKT2 monoclonal antibody (ab175354) in 3% BSA-PBS at a dilution of 1:20 and incubated overnight at 4 ºC in a humidified chamber. Cells were washed with PBST and incubated with a DyLight-conjugated secondary antibody in PBS at room temperature in the dark. F-actin (red) was stained with a fluorescent red phalloidin and nuclei (blue) were stained with Hoechst or DAPI. Images were taken at a magnification of 60x.



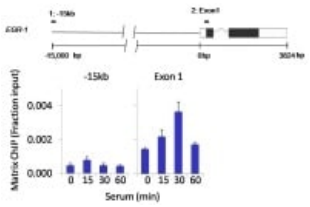
Immunocytochemistry/ Immunofluorescence - Anti-AKT2 antibody [4H7] (ab175354)

Immunofluorescent analysis of AKT2 (green) showing staining in the cytoplasm and nucleus of Hela cells (right) compared to a negative control without primary antibody (left). Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with an AKT2 monoclonal antibody (ab175354) in 3% BSA-PBS at a dilution of 1:20 and incubated overnight at 4 ºC in a humidified chamber. Cells were washed with PBST and incubated with a DyLight-conjugated secondary antibody in PBS at room temperature in the dark. F-actin (red) was stained with a fluorescent red phalloidin and nuclei (blue) were stained with Hoechst or DAPI. Images were taken at a magnification of 60x.



Immunocytochemistry/ Immunofluorescence - Anti-AKT2 antibody [4H7] (ab175354)

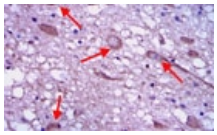
Immunofluorescent analysis of AKT2 (green) showing staining in the cytoplasm and nucleus of MCF-7 cells (right) compared to a negative control without primary antibody (left). Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with an AKT2 monoclonal antibody (ab175354) in 3% BSA-PBS at a dilution of 1:20 and incubated overnight at 4 ºC in a humidified chamber. Cells were washed with PBST and incubated with a DyLight-conjugated secondary antibody in PBS at room temperature in the dark. F-actin (red) was stained with a fluorescent red phalloidin and nuclei (blue) were stained with Hoechst or DAPI. Images were taken at a magnification of 60x.



ChIP - Anti-AKT2 antibody [4H7] (ab175354)

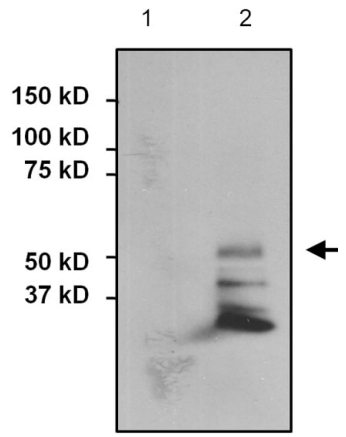
Chromatin immunoprecipitation analysis of Akt1 and Akt2 was performed using cross-linked chromatin from 1 x 10^6 HCT116 colon carcinoma cells treated with serum for 0, 15, 30, and 60 minutes. Immunoprecipitation was performed with 1.0ul/100ul well volume of an Atk1 monoclonal antibody and an Akt2 monoclonal antibody (ab175354). Chromatin aliquots from ~1 x 10^5 cells were used per ChIP pull-down. Quantitative PCR data were done in quadruplicate using 1ul of eluted DNA in 2ul SYBR real-time PCR reactions containing primers to amplify -15kb upstream of the Egr1 gene or exon-1 of Egr1. PCR calibration curves were generated for each primer pair from a dilution series of sheared total genomic DNA. Quantitation of immunoprecipitated chromatin is presented as signal relative to the total amount of input chromatin. Results represent the mean +/- SEM for three experiments. A schematic representation of the Egr-1 locus is shown above the data where boxes represent exons (black boxes = translated regions, white boxes = untranslated regions); the zigzag line represents an intron;

and the straight line represents upstream sequence. Regions amplified by Egr-1 primers are represented by black bars.



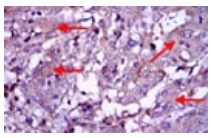
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-AKT2 antibody [4H7] (ab175354)

Immunohistochemical analysis of deparaffinized Human Esophageal cancer tissue labeling AKT2 with ab175354 at 1/200 dilution. Detection was performed using a goat anti-mouse HRP secondary antibody followed by colorimetric detection using DAB substrate.



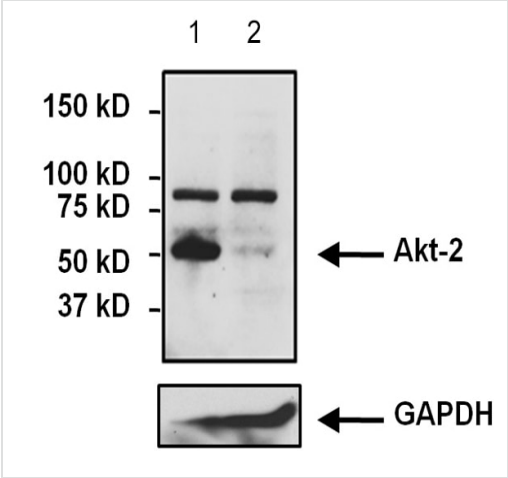
Immunoprecipitation - Anti-AKT2 antibody [4H7] (ab175354)

Immunoprecipitation of AKT2 was performed on HeLa cells. The antigen:antibody complex was formed by incubating 750 µg whole cell lysate with 2 µg of ab175354. WB detection used ab175354 at 1/1000 dilution.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-AKT2 antibody [4H7] (ab175354)

Immunohistochemical analysis of deparaffinized normal Human Medulla Oblongata tissue labeling AKT2 with ab175354 at 1/200 dilution. Detection was performed using a goat anti-mouse HRP secondary antibody followed by colorimetric detection using DAB substrate.



Western blot - Anti-AKT2 antibody [4H7] (ab175354)

All lanes : Anti-AKT2 antibody [4H7] (ab175354) at 1/1000 dilution

Lane 1 : Non-transfected U2OS cells

Lane 2 : U2OS cells transfected with AKT2 siRNA

Secondary

All lanes : goat anti-mouse-HRP at 1/20000 dilution

Predicted band size: 55 kDa

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