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Anti-Phospho-AKT1 (T450) Rabbit Monoclonal Antibody

Catalog Number: P00024-2

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Overview

Product Name	Anti-Phospho-AKT1 (T450) Rabbit Monoclonal Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Phospho-AKT1 (T450) Rabbit Monoclonal Antibody catalog # P00024-2. Tested in WB, IHC, ICC/IF, IP applications. This antibody reacts with Human, Mouse, Rat.
Application	IP, IF, IHC, ICC, WB
Clonality	Monoclonal HEA-1
Formulation	Rabbit IgG in stabilizing components, phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. *This antibody is supplied in a stabilized formulation. Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required.
Storage Instructions	Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P31749

Technical Details

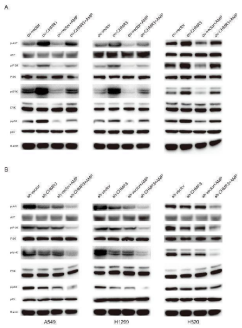
Immunogen	A synthesized peptide derived from human AKT1
Isotype	Rabbit IgG
Form	Liquid
Concentration	0.5mg/ml
Purification	Affinity-chromatography
Suggested Dilutions	WB, 1:500-2000

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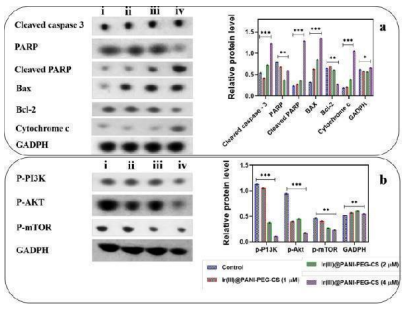
	IHC, 1:50-200 ICC/IF, 1:50-200 IP, 1:20

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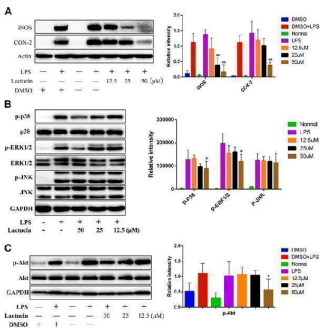
Anti-Phospho-AKT1 (T450) Rabbit Monoclonal Antibody (P00024-2) Images



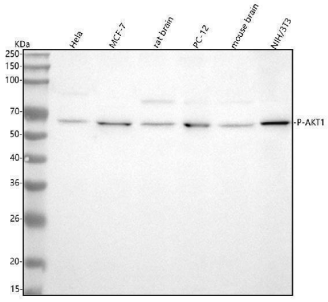
AMP treatment regulates the PI3K/AKT and MAPK signaling pathways. Lung cells (A549, NCI-H1299, and NCI-H520) with stable CHRM3 overexpression (A) or knockdown (B) were treated with or without 100 ug/mL AMPs for 48 h. The expression levels of PI3K/AKT pathway proteins and MAPK pathway proteins were detected using western blot.Index in PubMed under a CC BY license. PMID: 40718823



a Western blotting was used to examine mitochondrial apoptotic pathway-related proteins after treatment with control (i), PANI-PEG-CS (ii), Ir(III) complex (iii), and Ir(III)@PANI-PEG-CS (iv). Key proteins involved in apoptosis such as Bax, Bcl-2, cytochrome c, and cleaved caspase-3 were examined to better understand how each treatment affects cell death at the mitochondrial level. b To further investigate the underlying molecular mechanisms, western blotting was used to investigate the PI3K/AKT/mTOR pathway (i), PANI-PEG-CS (ii), Ir(III) complex (iii), and Ir(III)@PANI-PEG-CS (iv). Expression levels of PI3K, AKT (total and phosphorylated), and mTOR were evaluated to assess whether this survival pathway was activated or suppressed. Protein levels were quantified and compared to the control group to determine statistical significance. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$ in comparison to the respective control Index in Springer Nature under a CC BY license. DOI: 10.1186/s12645-025-00336-z



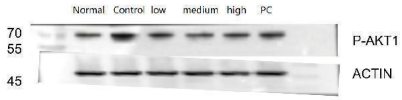
Effect of Lactucin on the activation of signaling pathways. (A) The whole-cell lysates were extracted for immunoblotting to determine the level of iNOS, COX-2. (B, C) The whole-cell lysates were extracted for immunoblotting to determine the levels of phospho- or total MAPKs (ERK, p38, and JNK) and AKT identified based on their antibodies. Data are shown as mean ± SD for each group (* $p < 0.05$ with the LPS Group, n = 3. Normal Group: RAW264.7 cells without LPS activation).Index in PubMed under a CC BY license. PMID: 33995112



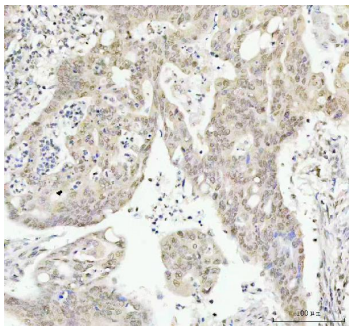
Western blot analysis of AKT1 using anti-AKT1 antibody (P00024-2). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human Hela whole cell lysates, Lane 2: human MCF-7 whole cell lysates, Lane 3: rat brain tissue lysates, Lane 4: rat PC-12 whole cell lysates, Lane 5: mouse brain tissue lysates, Lane 6: mouse NIH/3T3 whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat

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milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-AKT1 antigen affinity purified monoclonal antibody (Catalog # P00024-2) at 1:1000 overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:1000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for AKT1 at approximately 65 kDa. The expected band size for AKT1 is at 56 kDa.



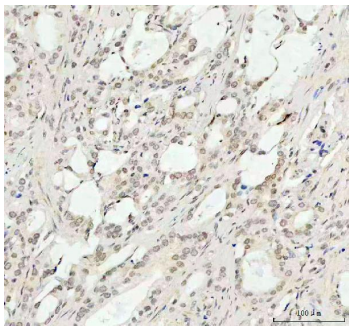
Western blot analysis of AKT1 using anti-AKT1 antibody (P00024-2). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: Normal group-rat colon tissue lysates, Lane 2: Control group-rat colon tissue lysates, Lane 3: Low-dose drug treatment-rat colon tissue lysates, Lane 4: Medium-dose drug treatment-rat colon tissue lysates, Lane 5: Positive drug treatment-rat colon tissue lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-AKT1 antigen affinity purified monoclonal antibody (Catalog # P00024-2) at 1:1000 overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:1000 for 1 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with ChemiDoc MP system. A specific band was detected for AKT1 at approximately 70 kDa. The expected band size for AKT1 is at 56 kDa.



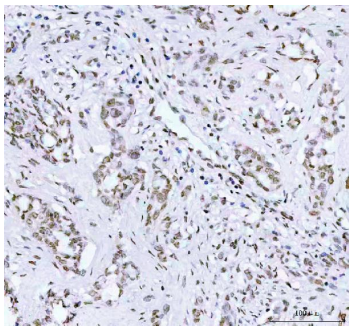
IHC analysis of AKT1 using anti-AKT1 antibody (P00024-2). AKT1 was detected in a paraffin-embedded section of human colorectal adenocarcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1:50 rabbit anti-AKT1 Antibody (P00024-2) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

IHC analysis of AKT1 using anti-AKT1 antibody (P00024-2). AKT1 was detected in a paraffin-embedded section of human prostate cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1:50 rabbit anti-AKT1 Antibody (P00024-2) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as

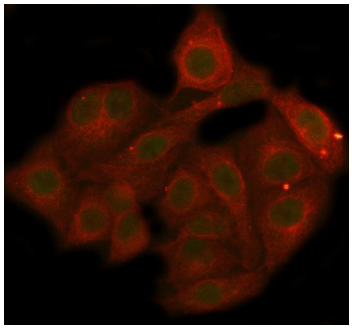
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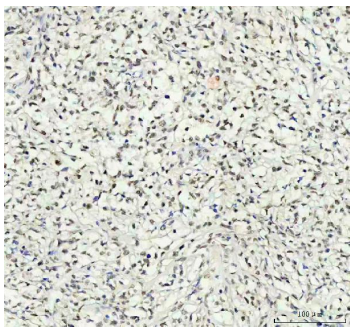
secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



IHC analysis of AKT1 using anti-AKT1 antibody (P00024-2). AKT1 was detected in a paraffin-embedded section of human lung adenocarcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1:50 rabbit anti-AKT1 Antibody (P00024-2) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



IF analysis of AKT1 using anti-AKT1 antibody (P00024-2) and anti-Beta Tubulin antibody (M01857-3). AKT1 was detected in immunocytochemical section of A549 cell. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated at 1:50 with rabbit anti-AKT1 Antibody (P00024-2) and mouse anti-Beta Tubulin antibody (M01857-3) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) and Cy3 Conjugated Goat Anti-Mouse IgG (BA1031) were used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37°C. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



IHC analysis of AKT1 using anti-AKT1 antibody (P00024-2). AKT1 was detected in a paraffin-embedded section of intestinal diffuse large B-cell lymphoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1:50 rabbit anti-AKT1 Antibody (P00024-2) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

14 Publications Citing This Product

1. PubMed ID: 26136904, Tang Y, Zhang X, Qi F, Chen M, Li Y, Liu L, He W, Li Z, Zu X. Exp Ther Med. 2015 May;9(5):1851-1856. Epub 2015 Feb 25. Afatinib Inhibits Proliferation And Invasion And Promotes Apoptosis Of The T24 Bladder Cancer Cell Line.

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2. PubMed ID: 23630144, Wang Gg, Li W, Lu Xh, Zhao X, Xu L. Croat Med J. 2013 Apr;54(2):171-9. Taurine Attenuates Oxidative Stress And Alleviates Cardiac Failure In Type I Diabetic Rats.

3. PubMed ID: 23442498, Qin Q, Niu J, Wang Z, Xu W, Qiao Z, Gu Y. Cardiovasc Diabetol. 2013 Feb 26;12:37. Doi: 10.1186/1475-2840-12-37. Heparanase Induced By Advanced Glycation End Products (Ages) Promotes Macrophage Migration Involving Rage And Pi3K/Akt Pathway.

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