

Phospho-AKT1 (Ser473) Monoclonal Antibody (14-6)

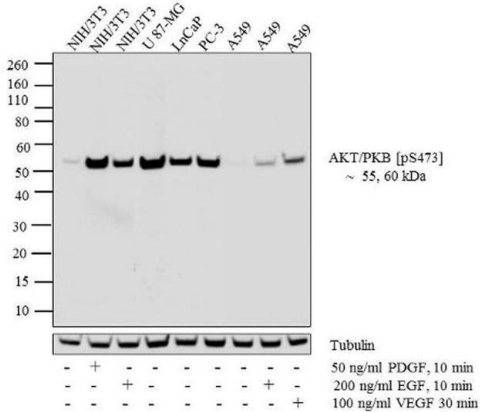
Product Details	
Size	100 µL
Species Reactivity	Human, Mouse
Published Species	Dog, Rat, Human, Mouse, Chicken
Host/Isotype	Rabbit / IgG
Class	Monoclonal
Type	Antibody
Clone	14-6
Conjugate	Unconjugated
Immunogen	The antibody was produced against a chemically synthesized phosphopeptide derived from the region of human Akt that contains serine 473.
Form	Liquid
Concentration	0.5 mg/mL
Purification	Protein A
Storage buffer	Dulbecco's PBS, pH 7.3, with 1mg/mL BSA, 50% glycerol
Contains	0.1% sodium azide
Storage conditions	-20°C
RRID	AB_2533699

Applications	Tested Dilution	Publications
Western Blot (WB)	1:1,000	45 Publications
Immunohistochemistry (IHC)	-	1 Publication
Immunohistochemistry (Paraffin) (IHC (P))	1:10-1:100	-
Immunocytochemistry (ICC/IF)	1:50-1:200	-
in situ PLA (PLA)	-	1 Publication
Miscellaneous PubMed (Misc)	-	1 Publication

Product Specific Information

This product contains enough material for 10 mini-blots. The immunogenic sequence is conserved among multiple species including human, mouse, and rat in all three isoforms: Akt1, Akt2, and Akt3. Others species (100% homologous) have not been tested. Recommended positive controls include NIH-3T3 cells stimulated with PDGF and 3T3-L1 adipocytes stimulated with OSM and IFN-gamma.

Product Images For Phospho-AKT1 (Ser473) Monoclonal Antibody (14-6)

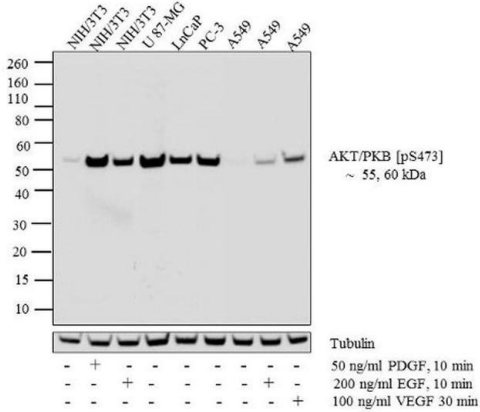


Phospho-AKT1 (Ser473) Antibody (44-621G) in WB

Western blot analysis of Akt/PKB (pS473) was performed by loading 20 µg of NIH/3T3 (lane1), NIH/3T3 treated for 10 minutes with 50 ng/mL of PDGF (lane2), NIH/3T3 treated for 10 minutes with 200 ng/mL of EGF (lane3), U-87 MG (lane4), LNCaP (lane5), PC-3 (lane6), A549 (lane7), A549 treated for 10 minutes with 200 ng/mL of EGF (lane8) and A549 treated for 10 minutes with 100 ng/mL of Vegf (lane9) cell lysate using Novex®NuPAGE®4-12 % Bis-Tris gel (Product # NP0322BOX), XCell SureLock Electrophoresis System (Product # EI0002), Novex® Sharp Pre-Stained Protein Standard (LC5800), and iBlot® 2 Dry Blotting System (IB21001). Proteins were transferred to a nitrocellulose membrane and blocked with 5% skim milk for 1 hour at room temperature. Akt/PKB (pS473) was detected at ~55 kDa using Akt/PKB (pS473) Rabbit Monoclonal Antibody (Product # 44-621G) at 1:1000 dilution in 5% skim milk at 4°C overnight on a rocking platform. Goat Anti-Rabbit IgG - HRP Secondary Antibody (G21234) at 1:5000 dilution was used and chemiluminescent detection was performed using Pierce™ ECL Western Blotting Substrate (Product # 32106).

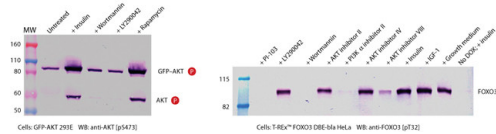
Phospho-AKT1 (Ser473) Antibody (44-621G)

Altered expression of proteins upon cell treatment demonstrates antibody specificity. Western blot of phospho Phospho-AKT1 (Ser473) using anti-AKT1 [pSer473] Rabbit polyclonal Antibody (Product # 44-621G), shows increase in expression of Phospho-AKT1 (Ser473) upon treatment with PDGF as well as EGF in NIH3T3 cells. A549 cells on treatment with EGF or VEGF also shows increased expression of Phospho-AKT1 (Ser473). {TM}



Phospho-AKT1 (Ser473) Antibody (44-621G) in WB

Validation of LanthaScreen™ and CellSensor® cell lines via western blot. (A) LanthaScreen™ GFP-AKT HEK 293E cells were treated under the indicated conditions, including IGF-1 (Product # PHG9071), LY294002 (Product # PHZ1144), and wortmannin (Product # PHZ1301). Cell extracts were resolved by SDS-PAGE and transferred to nitrocellulose with the iBlot® Gel Transfer Device (Product # IB1001). The membrane was then probed with the anti-AKT (PS473) PSSA (Product # 44-621G), and the signal was detected using a WesternBreeze® Chromogenic Kit (Product # WB7105). (B) CellSensor® T REX™ FOXO3 DBE-bla HeLa cell lysates were generated by treatment with doxycycline to induce FOXO3 expression, followed by incubation with the indicated stimulants or inhibitors and lysis. The nitrocellulose membrane was prepared and developed as in (A), except that the PSSA used in this case was anti-FOXO3 (PT32) (Product # 44-1240G).



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Western Blot (45)

Journal of biochemical and molecular toxicology

LncRNA FOXD3-AS1 aggravates myocardial ischemia/reperfusion injury by inactivating the Redd1/AKT/GSK3/Nrf2 signaling pathway via the miR-128/TXNIP axis.

"44-621G was used in Western Blotting to show that both inhibition of miR-128 and overexpression of TXNIP reversed the cardioprotective effect of FOXD3-AS1 small interfering RNA in H/R-induced H9c2 cells."

Authors: Chen B,Zheng L,Zhu T,Jiao K

Year
2022

Species
Rat

Dilution
1:2000

The Journal of cell biology

Fyn and TOM1L1 are recruited to clathrin-coated pits and regulate Akt signaling.

"44-621G was used in Western Blotting to examine how CCPs control EGFR signaling."

Authors: Cabral-Dias R,Lucarelli S,Zak K,Rahmani S,Judge G,Abousawan J,DiGiovanni LF,Vural D,Anderson KE, Sugiyama MG,Genc G,Hong W,Botelho RJ,Fairn GD,Kim PK,Antonescu CN

Year
2022

Species
Human

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Immunohistochemistry (1)

Cell death & disease

Phlpp1 is associated with human intervertebral disc degeneration and its deficiency promotes healing after needle puncture injury in mice.

"Published figure using Phospho-AKT1 (Ser473) monoclonal antibody (Product # 44-621G) in Immunohistochemistry"

Authors: Zhang C,Smith MP,Zhou GK,Lai A,Hoy RC,Mroz V,Torre OM,Laudier DM,Bradley EW,Westendorf JJ,Iatridis JC,Illien-Jünger S

Year
2019

in situ PLA (1)

American journal of physiology. Lung cellular and molecular physiology

Phenotype transitions induced by mechanical stimuli in airway smooth muscle are regulated by differential interactions of parvin isoforms with paxillin and Akt.

"44-621G was used in Proximity Ligation Assay (PLA) to describe a novel molecular mechanism for transduction of mechanical and humoral stimuli within integrin signaling complexes to regulate phenotype expression in airway smooth muscle."

Authors: Huang Y,Gunst SJ

Year
2020

Species
Dog

More applications with references on thermofisher.com

Misc (1)

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