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

Product Details	
Size	100 µL
Species Reactivity	Human, Mouse
Published Species	Rat, Mouse, Human
Host/Isotype	Rabbit / IgG
Class	Monoclonal
Type	Antibody
Clone	14-6
Conjugate	Unconjugated
Immunogen	Synthetic phosphopeptide derived from a region of human PKB 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	0.05% sodium azide
Storage conditions	-20° C, Avoid Freeze/Thaw Cycles
RRID	AB_557533

Applications	Tested Dilution	Publications
Western Blot (WB)	1:500	8 Publications
Immunocytochemistry (ICC/IF)	1:100	-

Product Specific Information

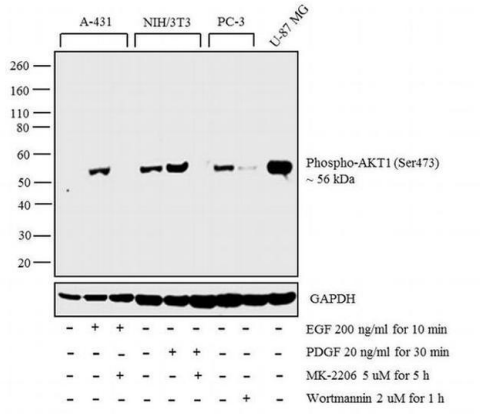
OMA1-03061 detects protein kinase B (PKB) phosphorylated at Ser473 from human and mouse samples. OMA1-03061 detects PKB 1,2,and 3.

OMA1-03061 has been successfully used in Western blot, immunofluorescence, and immunocytochemistry procedures. By Western blot, this antibody detects an ~55 kDa protein representing phosphorylated PKB (Ser473) from NIH-3T3 cells treated with platelet-derived growth factor (PDGF).

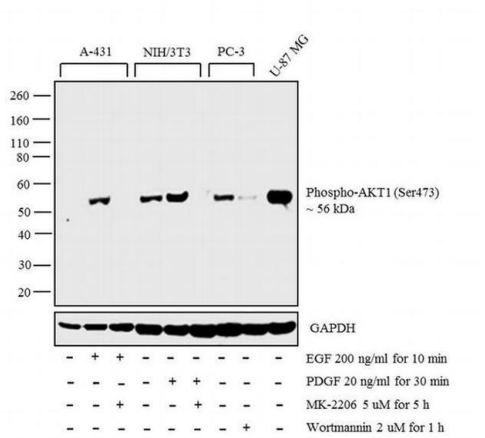
The OMA1-03061 immunizing phosphopeptide was derived from a region of human PKB that contains serine 473. There is 100% homology with other species, that have not yet been tested.

Antibodies to this protein (and modification) were previously sold as part of a Thermo Scientific Cellomics High Content Screening Kit. This replacement antibody is now recommended for researchers who need an antibody for high content cell based assays. It has been thoroughly tested and validated for cellular immunofluorescence (IF) applications. Further optimization including the selection of the most appropriate fluorescent Dylight conjugated secondary antibody may have to be performed for your high content assay.

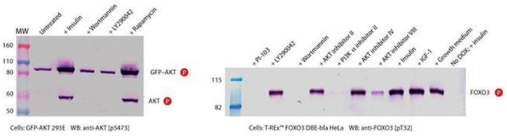
Product Images For Phospho-AKT1 (Ser473) Monoclonal Antibody (14-6)



Phospho-AKT1 (Ser473) Antibody (OMA1-03061) in WB
Western blot analysis was performed on whole cell extracts (30 µg lysate) of A-431 (Lane 1), A-431 treated with EGF (200 ng/mL for 10 min) (Lane 2), A-431 treated with MK-2206 (5 uM for 5 h) followed by EGF treatment (200 ng/mL for 10 min) (Lane 3), NIH/3T3 (Lane 4), NIH/3T3 treated with PDGF (20 ng/mL for 30 min) (Lane 5), NIH/3T3 treated with MK-2206 (5uM for 5 h) followed by PDGF (20 ng/mL for 30 min) (Lane 6), PC-3 (Lane 7), PC-3 treated with Wortmannin (2 uM for 1 h) (Lane 8) and U-87 MG (Lane 9). The blot was probed with Anti-Phospho-AKT1 (Ser473) Monoclonal Antibody (Product # OMA1-03061, 1:500 dilution) and detected by chemiluminescence using Goat anti-Rabbit IgG (Heavy Chain) Superclonal™ Secondary Antibody, HRP conjugate (Product # A27036, 0.25 µg/mL, 1:4000 dilution). A 56 kDa band corresponding to Phospho-AKT1 (Ser473) was enhanced upon growth factor treatment across the cell lines tested and reduced upon drug treatment.



Phospho-AKT1 (Ser473) Antibody (OMA1-03061)
Altered expression of proteins upon cell treatment demonstrates antibody specificity. Western blot using Phospho-AKT1 (Ser473) Monoclonal Antibody (Product # OMA1-03061) shows increased expression of protein phosphorylated at the serine residues in A-431 treated with EGF and NIH/3T3 treated with PDGF. Pre-treatment with AKT-antagonist MK-2206 resulted in inhibition of Phospho-AKT1 (Ser473) in A-431 and NIH/3T3. Treatment of PC-3 with PI3K-antagonist, Wortmannin, also showed reduction in Phospho-AKT1 (Ser473). {TM}



Phospho-AKT1 (Ser473) Antibody (OMA1-03061) in WB
Western blot analysis of LanthaScreen™ and CellSensor® cell lines using a phospho-AKT pSer473 monoclonal antibody (Product # OMA1-03061). (A) LanthaScreen™ GFP-AKT HEK293E 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 # OMA1-03061), 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).

View more figures on thermofisher.com

8 References

Western Blot (8)

Renal failure

Implications of cell division cycle associated 4 on the Wilm's tumor cells viability via AKT/mTOR signaling pathway.

"Published figure using Phospho-AKT1 (Ser473) monoclonal antibody (Product # OMA1-03061) in Western Blot"

Authors: Li S,Qin C,Chen Y,Wei D,Tan Z,Meng J

Year
2021

Cell & bioscience

New insights on thyroid hormone mediated regulation of herpesvirus infections.

"OMA103061 was used in western blot to discuss the roles of T3 in the regulation of HSV-1 replication during latency and reactivation"

Authors: Figliozzi RW,Chen F,Hsia SV

Year
2020

Species
Human

Dilution
1:1000

View more WB references on thermofisher.com

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