

For Research Use Only

Phospho-AKT (Ser473) Polyclonal antibody



Catalog Number: 28731-1-AP

82 Publications

Basic Information

Catalog Number: 28731-1-AP	GenBank Accession Number: NM_005163	Purification Method: Antigen affinity purification
Size: 100ul , Concentration: 430 µg/ml by Nanodrop;	GeneID (NCBI): 207	Recommended Dilutions: WB 1:1000-1:5000
Source: Rabbit	Full Name: v-akt murine thymoma viral oncogene homolog 1	
Isotype: IgG	Observed MW: 58 kDa	

Applications

Tested Applications: WB, ELISA	Positive Controls: WB : Calyculin A treated PC-3 cells, PDGF treated NIH/3T3 cells
Cited Applications: IF, IHC, WB	
Species Specificity: Human, mouse, rat	
Cited Species: human, rat, mouse, pig	

Background Information

Phosphorylation on Thr-308, Ser-473 and Tyr-474 is required for full activity. Activated TNK2 phosphorylates it on Tyr-176 resulting in its binding to the anionic plasma membrane phospholipid PA (PubMed:20333297). This phosphorylated form localizes to the cell membrane, where it is targeted by PDPK1 and PDPK2 for further phosphorylations on Thr-308 and Ser-473 leading to its activation (PubMed:9512493). Ser-473 phosphorylation by mTORC2 favors Thr-308 phosphorylation by PDPK1 (PubMed:21464307, PubMed:8978681). AKT1 Thr-308 and Ser-473 is Phosphorylated by IKBKE and TBK1 (PubMed:15718470, PubMed:18456494, PubMed:20481595, PubMed:8978681). Ser-473 phosphorylation is enhanced by interaction with AGAP2 isoform 2 (PIKE-A) (PubMed:14761976). Ser-473 phosphorylation is enhanced in focal cortical dysplasias with Taylor-type balloon cells (PubMed:17013611). Ser-473 phosphorylation is enhanced by signaling through activated FLT3 (By similarity). Ser-473 is dephosphorylated by PHLPP (PubMed:28147277) and Ser-473 by PP2A phosphatase (PubMed:21329884).

Notable Publications

Author	Pubmed ID	Journal	Application
De-Wei Zhu	34658873	Front Pharmacol	WB
Dewei He	36139502	Cells	WB
Chunling Yuan	36095961	Biomed Pharmacother	WB

Storage

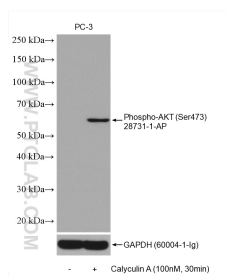
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

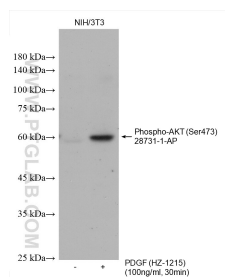
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Selected Validation Data



Non-treated PC-3 and Calyculin A treated PC-3 cells were subjected to SDS PAGE followed by western blot with 28731-1-AP (Phospho-AKT (Ser473) antibody) at dilution of 1:3000 incubated at 4°C overnight. The membrane was stripped and re-blotted with GAPDH antibody as loading control.



Non-treated NIH/3T3 and PDGF (HZ-1215) treated NIH/3T3 cells were subjected to SDS PAGE followed by western blot with 28731-1-AP (Phospho-AKT (Ser473) antibody) at dilution of 1:3000 incubated at room temperature for 1.5 hours.