

For Research Use Only

Phospho-AKT (Ser473) Polyclonal antibody



Catalog Number: 28731-1-AP **26 Publications**

Basic Information

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| Catalog Number: 28731-1-AP | GenBank Accession Number: NM_005163 | Purification Method: Antigen affinity purification |
| Size: 100ul , Concentration: 435 µg/ml by Nanodrop; | GeneID (NCBI): 207 | Recommended Dilutions: WB 1:1000-1:6000 |
| Source: Rabbit | Full Name: v-akt murine thymoma viral oncogene homolog 1 | |
| Isotype: IgG | Observed MW: 58 kDa | |

Applications

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| Tested Applications: WB, ELISA | Positive Controls: WB : Calyculin A treated PC-3 cells, |
| Cited Applications: IHC, WB | |
| Species Specificity: Human, mouse, rat | |
| Cited Species: human, mouse, rat | |

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 |

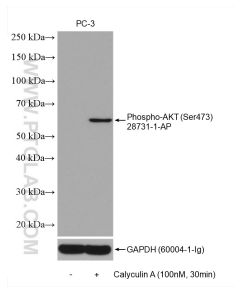
Storage

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

For technical support and original validation data for this product please contact:
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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.