

## Phospho-AKT1(S124) Rabbit mAb

Catalog No: #13423

Package Size: #13423-1 50ul #13423-2 100ul

Orders: [order@signalwayantibody.com](mailto:order@signalwayantibody.com)Support: [tech@signalwayantibody.com](mailto:tech@signalwayantibody.com)

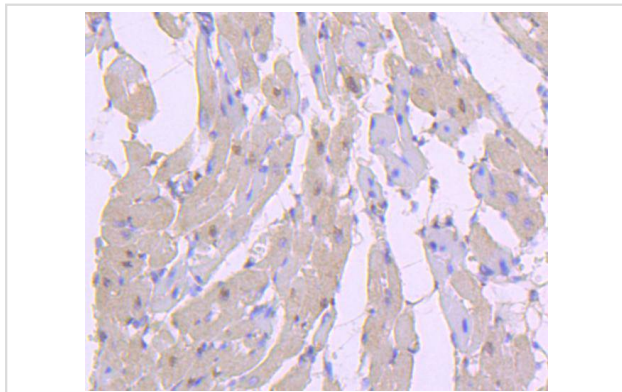
## Description

Product Name	Phospho-AKT1(S124) Rabbit mAb
Host Species	Rabbit
Clonality	Monoclonal
Clone No.	JJ08-46
Purification	ProA affinity purified
Applications	WB, ICC/IF, IHC, IP
Species Reactivity	Hu, Ms, Rt
Immunogen Description	Synthetic phospho-peptide corresponding to residues surrounding Ser124 of human AKT1.
Other Names	AKT 1 antibody AKT antibody AKT1 antibody AKT1_HUMAN antibody MGC99656 antibody PKB antibody PKB-ALPHA antibody PRKBA antibody Protein Kinase B Alpha antibody Protein kinase B antibody Proto-oncogene c-Akt antibody RAC Alpha antibody RAC antibody RAC-alpha serine/threonine-protein kinase antibody RAC-PK-alpha antibody
Accession No.	Swiss-Prot#:P31749
Uniprot	P31749
GeneID	207;
Calculated MW	56 kDa
Formulation	1*TBS (pH7.4), 1%BSA, 40%Glycerol. Preservative: 0.05% Sodium Azide.
Storage	Store at -20°C

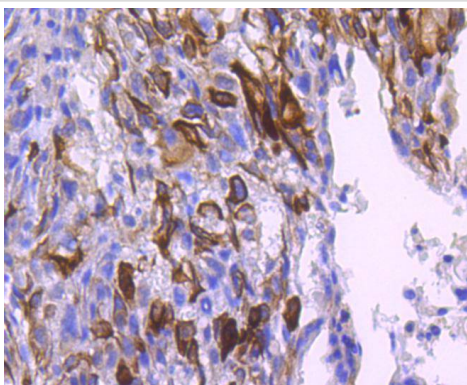
## Application Details

WB: 1:1,000 IHC: 1:50-1:200 ICC: 1:50-1:200

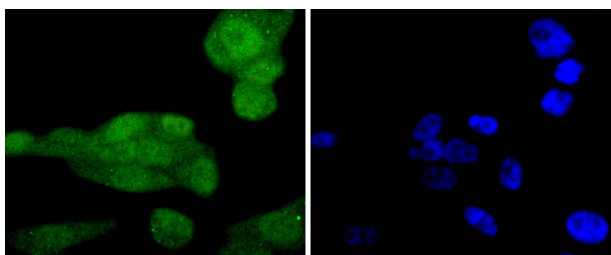
## Images



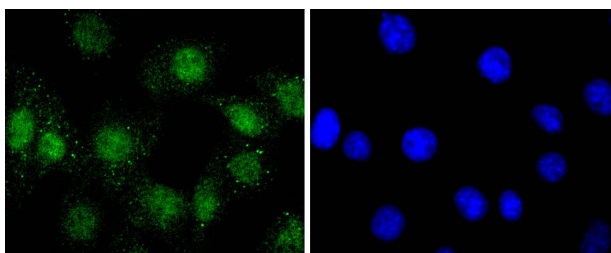
Immunohistochemical analysis of paraffin-embedded rat heart tissue using anti-Phospho-AKT1(S124) antibody. Counter stained with hematoxylin.



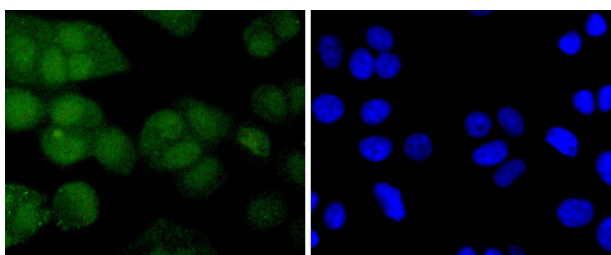
Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using anti-Phospho-AKT1(S124) antibody. Counter stained with hematoxylin.



ICC staining Phospho-AKT1(S124) in PC-3M cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.



ICC staining Phospho-AKT1(S124) in NIH/3T3 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.



ICC staining Phospho-AKT1(S124) in MCF-7 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

## Background

The serine/threonine kinase Akt family contains several members, including Akt1 (also designated PKB or RacPK), Akt2 (also designated PKB $\beta$  or RacPK- $\beta$ ) and Akt 3 (also designated PKB $\gamma$  or thyoma viral proto-oncogene 3), which exhibit sequence homology with the protein kinase A and C families and are encoded by the c-Akt proto-oncogene. All members of the Akt family have a pleckstrin homology domain. Akt1 and Akt2 are activated by PDGF stimulation. Activation is dependent on PDGFR- $\beta$  Tyr residues 740 and 751, which bind the subunit of the phosphatidylinositol 3-kinase (PI 3-kinase) complex. Activation of Akt1 by Insulin or Insulin-growth factor-1(IGF-1) results in phosphorylation of both Thr 308 and Ser 473. Phosphorylation of both residues is important to generate a high level of Akt1 activity. The phosphorylation of Thr 308 is not dependent on phosphorylation of Ser 473 *in vivo*. Thus, Akt proteins become phosphorylated and activated in Insulin/IGF-1-stimulated cells by an upstream

kinase(s). The activation of Akt1 and Akt2 is inhibited by the PI kinase inhibitor wortmannin, suggesting that the protein signals downstream of the PI kinases.

## References

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Note: This product is for in vitro research use only