

## Anti-Phospho-AKT1 (Ser124) Antibody (1H96)

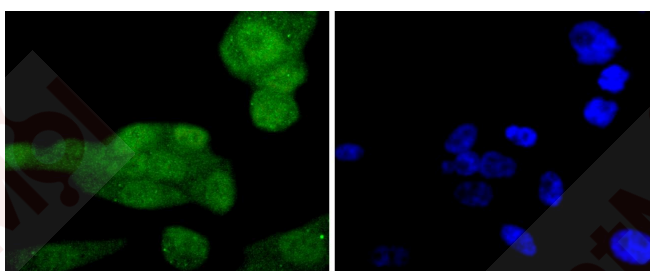
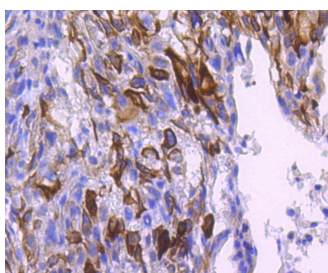
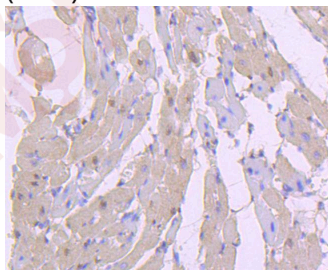
### Product Details

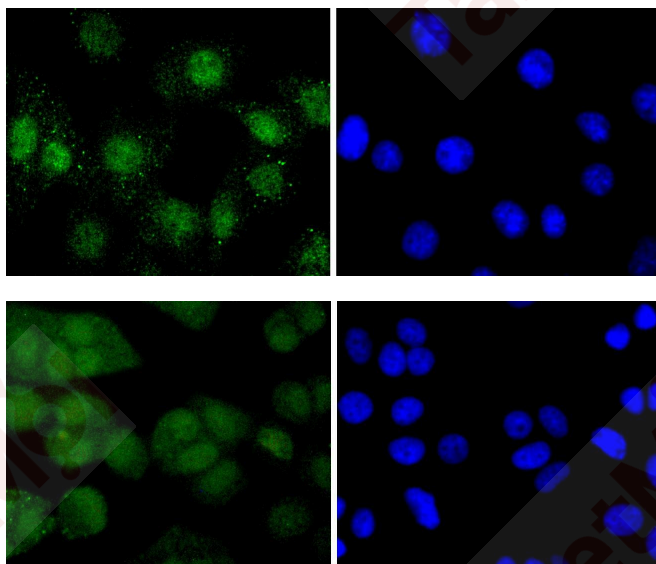
Ig Type:	IgG
Reactivity:	Human,Mouse,Rat
Conjugation:	Unconjugated
Molecular Weight:	Theoretical: 56 kDa.
Clone:	1H96
Purification:	ProA affinity purified

### Applications

#### Verified Activity:

1. Immunohistochemical analysis of paraffin-embedded rat heart tissue using anti-Phospho-AKT1 (S124) antibody. Counter stained with hematoxylin.
2. Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using anti-Phospho-AKT1 (S124) antibody. Counter stained with hematoxylin.
3. 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.
4. 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.
5. 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.





Application: ICC/IF,IHC,IP,WB

Recommended WB: 1:1000; IHC: 1:50-200; ICC/IF: 1:50-200

### Properties

Stability & Storage: Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.

Shipping: Shipping with blue ice.

### Antigen Details

Immunogen: A synthesized phosphopeptide: human AKT1 around the phosphorylation site of Ser124

Antigen Species: Human

Uniprot ID: P31749

Synonyms: p-AKT1 (S124);AKT1 (p-Ser124);AKT1 (p-S124);p-AKT1 (Ser124)

### Research 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 thymoma 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.

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