

## Phospho-AKT1 (T450) Rabbit mAb

Catalog No: #13410

Package Size: #13410-1 50ul #13410-2 100ul

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

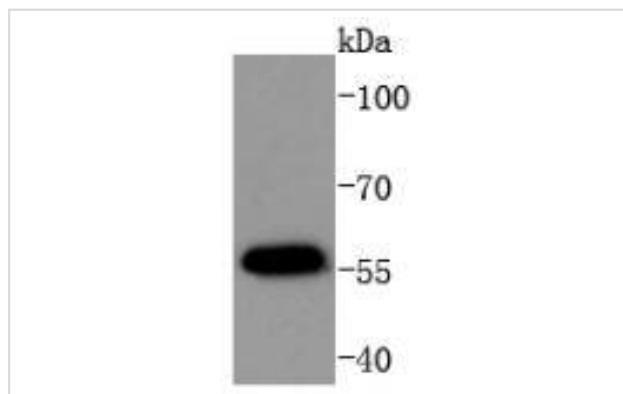
## Description

Product Name	Phospho-AKT1 (T450) Rabbit mAb
Host Species	Rabbit
Clonality	Monoclonal
Clone No.	SD08-12
Purification	ProA affinity purified
Applications	WB, IHC, IP
Species Reactivity	Hu, Ms, Rt
Immunogen Description	Synthetic phospho-peptide corresponding to residues surrounding Thr450 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

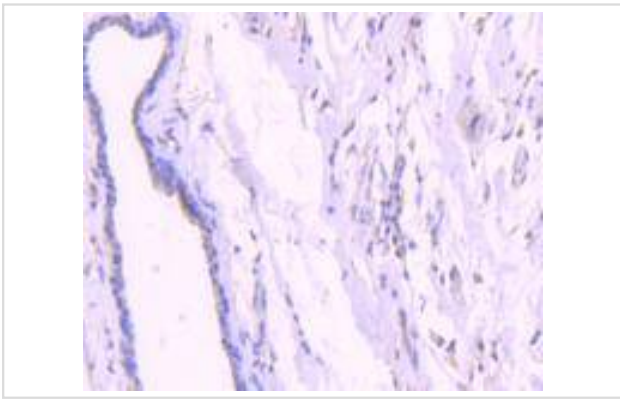
## Application Details

WB: 1:1,000-1:2,000 IHC: 1:50-1:100

## Images



Western blot analysis of Phospho-AKT1(T450) on MCF-7 cells lysates using anti-Phospho-AKT1(T450) antibody at 1/1,000 dilution.



Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using anti-Phospho-AKT1(T450) antibody. Counter stained with hematoxylin.

## Background

The serine/threonine kinase Akt family contains several members, including Akt1 (also designated PKB or RacPK), Akt2 and Akt 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. This activation is dependent on PDGFR- $\beta$  tyrosine 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, and 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

Note: This product is for in vitro research use only