

AKT1 Rabbit mAb

Catalog No: #48884



Package Size: #48884-1 50ul #48884-2 100ul

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

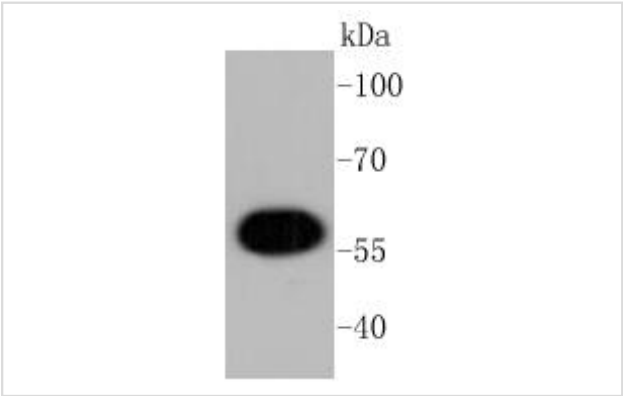
Description

Product Name	AKT1 Rabbit mAb
Host Species	Recombinant Rabbit
Clonality	Monoclonal antibody
Clone No.	ST48-09
Purification	ProA affinity purified
Applications	WB, ICC/IF, IHC, IP, FC
Species Reactivity	Hu, Ms, Rt
Immunogen Description	recombinant protein
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

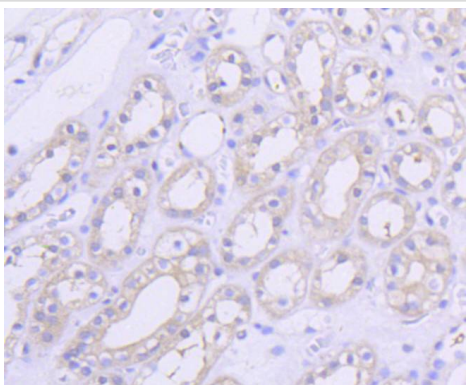
Application Details

WB: 1:1,000-1:2,000 IHC: 1:50-1:200 ICC: 1:50-1:200FC: 1:50-1:100

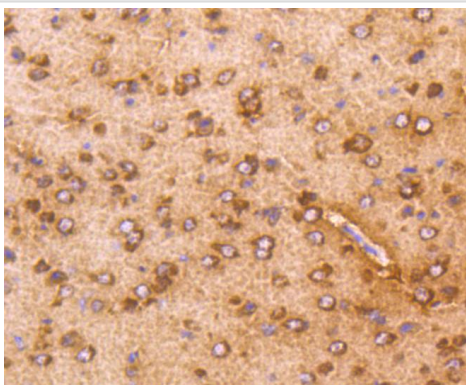
Images



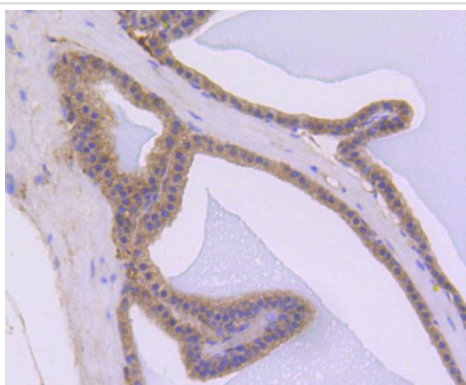
Western blot analysis of AKT1 on MCF-7 cell lysates using anti-AKT1 antibody at 1/1,000 dilution.



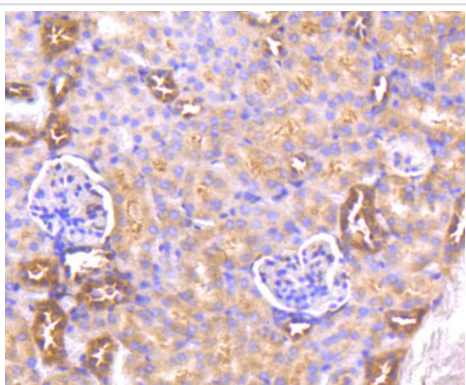
Immunohistochemical analysis of paraffin-embedded human kidney tissue using anti-AKT1 antibody. Counter stained with hematoxylin.



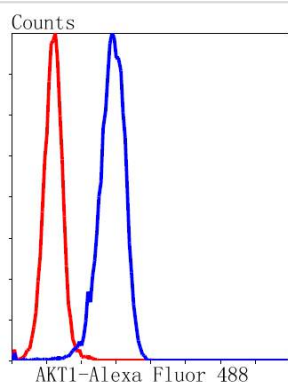
Immunohistochemical analysis of paraffin-embedded mouse brain tissue using anti-AKT1 antibody. Counter stained with hematoxylin.



Immunohistochemical analysis of paraffin-embedded mouse prostate tissue using anti-AKT1 antibody. Counter stained with hematoxylin.



Immunohistochemical analysis of paraffin-embedded mouse kidney tissue using anti-AKT1 antibody. Counter stained with hematoxylin.



Flow cytometric analysis of HeLa cells with AKT1 antibody at 1/50 dilution (blue) compared with an unlabelled control (cells without incubation with primary antibody; red). Alexa Fluor 488-conjugated goat anti rabbit IgG was used as the secondary antibody.

## 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. 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