

For Research Use Only

# AKT1-Specific Recombinant antibody

Catalog Number: 80816-1-RR

Featured Product

4 Publications



## Basic Information

Catalog Number:

80816-1-RR

Size:

100ul, Concentration: 1000 ug/ml by 207

Nanodrop;

Source:

Rabbit

Isotype:

IgG

Immunogen Catalog Number:

AG0213

GenBank Accession Number:

BC000479

GeneID (NCBI):

207

UNIPROT ID:

P31749

Full Name:

v-akt murine thymoma viral  
oncogene homolog 1

Calculated MW:

56 kDa

Observed MW:

56-62 kDa

Purification Method:

Protein A purification

CloneNo.:

509

Recommended Dilutions:

WB 1:5000-1:50000

IP 0.5-4.0 ug for 1.0-3.0 mg of total  
protein lysate

IHC 1:500-1:2000

FC (Intra) 0.40 ug per 10<sup>6</sup> cells in a  
100 µl suspension

## Applications

Tested Applications:

WB, IHC, FC (Intra), IP, ELISA

Cited Applications:

WB, IHC

Species Specificity:

human, mouse, rat

Cited Species:

human, mouse

**Note-IHC: suggested antigen retrieval with  
TE buffer pH 9.0; (\*) Alternatively, antigen  
retrieval may be performed with citrate  
buffer pH 6.0**

Positive Controls:

WB : HEK-293 cells, MCF-7 cells, HeLa cells, A549 cells,  
Jurkat cells, K-562 cells, NIH/3T3 cells, RAW 264.7  
cells, HSC-T6 cells, PC-12 cells

IP : HEK-293 cells,

IHC : human ovary tumor tissue,

FC (Intra) : Jurkat cells,

## Background Information

The serine-threonine protein kinase AKT1 is catalytically inactive in serum-starved primary and immortalized fibroblasts. AKT1 and the related AKT2 are activated by platelet-derived growth factor. The activation is rapid and specific, and it is abrogated by mutations in the pleckstrin homology domain of AKT1. It was shown that the activation occurs through phosphatidylinositol 3-kinase. In the developing nervous system AKT is a critical mediator of growth factor-induced neuronal survival. Survival factors can suppress apoptosis in a transcription-independent manner by activating the serine/threonine kinase AKT1, which then phosphorylates and inactivates components of the apoptotic machinery. 80816-1-RR recognizes AKT1 specifically.

## Notable Publications

Author	Pubmed ID	Journal	Application
Ziwen Wang	39604837	Mol Med	WB
Weixing Yang	39579820	Int J Biol Macromol	IHC
Xinran Tang	39278435	Int J Biol Macromol	WB

## Storage

Storage:

Store at -20°C. Stable for one year after shipment.

Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol, pH7.3

Aliquoting is unnecessary for -20°C storage

\*\*\* 20ul sizes contain 0.1% BSA

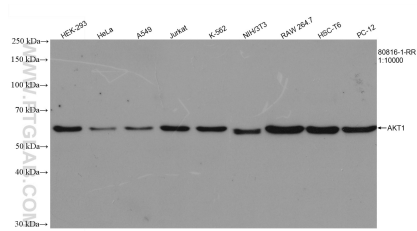
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free  
in USA), or 1(312) 455-8498 (outside USA)

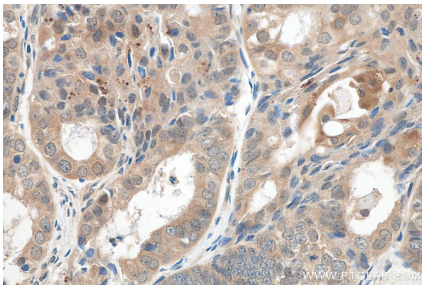
E: [proteintech@ptglab.com](mailto:proteintech@ptglab.com)  
W: [ptglab.com](http://ptglab.com)

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other manufacturer.

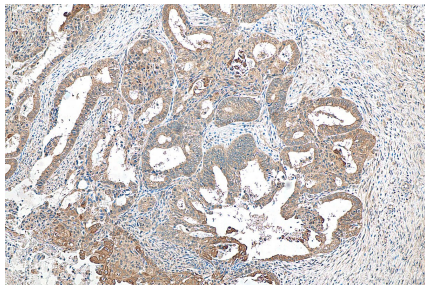
Selected Validation Data



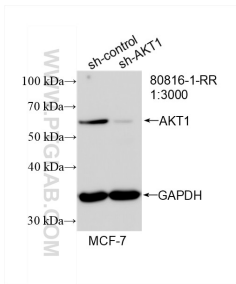
Various lysates were subjected to SDS PAGE followed by western blot with 80816-1-RR (AKT1 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



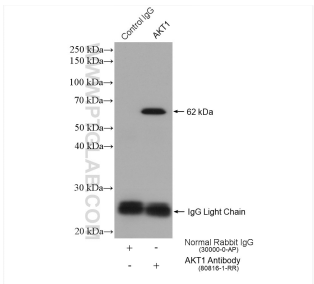
Immunohistochemical analysis of paraffin-embedded human ovary tumor tissue slide using 80816-1-RR (AKT antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



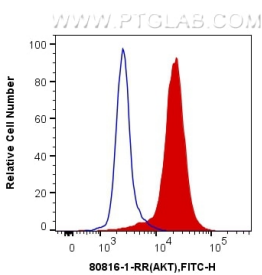
Immunohistochemical analysis of paraffin-embedded human ovary tumor tissue slide using 80816-1-RR (AKT antibody) at dilution of 1:1000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



WB result of AKT1 antibody (80816-1-RR; 1:3000; incubated at room temperature for 1.5 hours) with sh-Control and sh-AKT1 transfected MCF-7 cells.



IP result of anti-AKT1 (IP:80816-1-RR, 4ug; Detection:80816-1-RR 1:2000) with HEK-293 cells lysate 1280 ug.



1X10<sup>6</sup> Jurkat cells were intracellularly stained with 0.4 ug Anti-Human AKT1 (80816-1-RR, Clone:509) and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) at dilution 1:1000 (red), or 0.4 ug control antibody. Cells were fixed and permeabilized with Transcription Factor Staining Buffer Kit (PF00011).