

For Research Use Only

# AKT1 (C-terminal) Recombinant antibody



Catalog Number: 80457-1-RR

2 Publications

## Basic Information

Catalog Number:

80457-1-RR

Size:

1000 µg/ml

Source:

Rabbit

Isotype:

IgG

GenBank Accession Number:

NM\_005163

GeneID (NCBI):

207

UNIPROT ID:

P31749

Full Name:

v-akt murine thymoma viral oncogene homolog 1

Observed MW:

56-62 kDa

Purification Method:

Protein A purification

CloneNo.:

4I5

Recommended Dilutions:

WB 1:5000-1:50000

IHC 1:50-1:500

## Applications

Tested Applications:

IHC, WB, ELISA

Cited Applications:

WB

Species Specificity:

Human, mouse

Cited Species:

mouse

Positive Controls:

WB: HEK-293 cells, HEK-293T cells, NIH/3T3 cells, Calyculin A treated HepG2 cells, Calyculin A treated HEK-293 cells, HeLa cells, Calyculin A treated HeLa cells, Calyculin A treated NIH/3T3 cells

IHC: human breast cancer tissue,

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

## Background Information

AKT is a serine/threonine kinase and it participates in the key role of the PI3K signaling pathway. Phosphatidylinositol-3 kinase (PI3K) is the key regulator of AKT activation. The recruitment of inactive AKT protein to PIP3-rich areas of the plasma membrane results in a conformational change that exposes the activation loop of AKT. AKT's activating kinase, phosphoinositide-dependent protein kinase (PDK1), is also recruited to PIP3 microdomains. PDK1 phosphorylates AKT on threonine 308 (Thr308) of the exposed activation loop, activating AKT and leading to a second phosphorylation of AKT at serine 473 (Ser473) by a kinase presumed to be mTORC2 that further potentiates kinase activity. Active AKT will phosphorylate various downstream protein targets that control cell growth and translational control and act to suppress apoptosis. (PMID: 31594388, PMID: 30808672). 80457-1-RR specifically recognizes AKT1.

## Notable Publications

Author	Pubmed ID	Journal	Application
Yihan Huang	38092386	Biol Pharm Bull	WB
Quancheng Cheng	35973363	Redox Biol	WB

## Storage

Storage:

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

Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

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

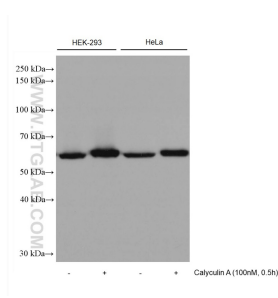
T: 4006900926

E: Proteintech-CN@ptglab.com

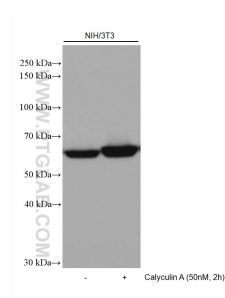
W: ptgcn.com

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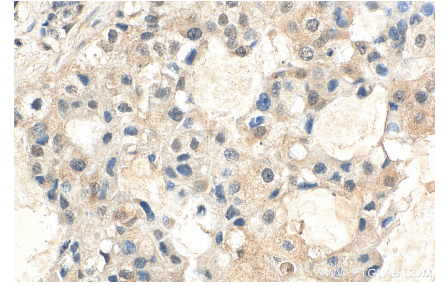
## Selected Validation Data



Non-treated and Calyculin A treated cells were subjected to SDS PAGE followed by western blot with 80457-1-RR (AKT1 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



Non-treated and Calyculin A treated NIH/3T3 cells were subjected to SDS PAGE followed by western blot with 80457-1-RR (AKT1 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded human breast cancer tissue slide using 80457-1-RR (AKT1 antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).