

For Research Use Only

# AKT1-Specific Recombinant antibody, PBS Only

Catalog Number: 80457-1-PBS



## Basic Information

Catalog Number: 80457-1-PBS	GenBank Accession Number: NM_005163	Purification Method: Protein A purification
Concentration: 1mg/ml	GeneID (NCBI): 207	CloneNo.: 4/5
Source: Rabbit	UNIPROT ID: P31749	
Isotype: IgG	Full Name: v-akt murine thymoma viral oncogene homolog 1	
	Observed MW: 56-62 kDa	

## Applications

Tested Applications:  
WB, IHC, IF/ICC, Indirect ELISA

Species Specificity:  
human, mouse

## 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.

## Storage

Storage:  
Store at -80°C.  
**The product is shipped with ice packs. Upon receipt, store it immediately at -80°C**

Storage Buffer:  
PBS Only

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

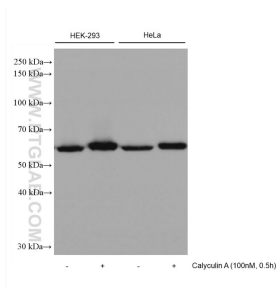
T: 4006900926

E: Proteintech-CN@ptglab.com

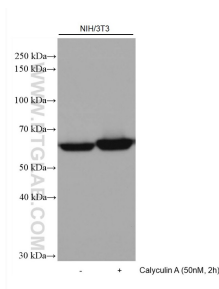
W: ptgcn.com

**This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.**

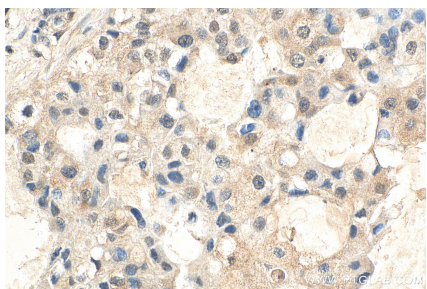
## Selected Validation Data



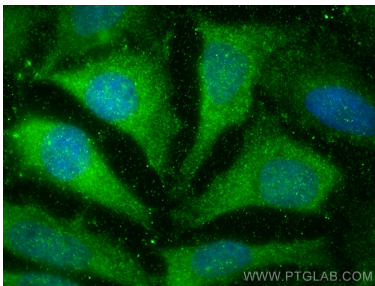
Non-treated and Calyculin A treated cells were subjected to SDS PAGE followed by western blot with 80457-1-RR (AKT1 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 80457-1-PBS in a different storage buffer formulation.



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. This data was developed using the same antibody clone with 80457-1-PBS in a different storage buffer formulation.



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). This data was developed using the same antibody clone with 80457-1-PBS in a different storage buffer formulation.



Immunofluorescent analysis of (-20°C Ethanol) fixed HeLa cells using AKT1 (C-terminal) antibody (80457-1-RR, Clone: 4I5 ) at dilution of 1:400 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L). This data was developed using the same antibody clone with 80457-1-PBS in a different storage buffer formulation.