

For Research Use Only

# Phospho-AKT (Ser473) Recombinant antibody, PBS Only



Catalog Number: 80455-1-PBS

## Basic Information

**Catalog Number:**

80455-1-PBS

**Size:**

100ug, Concentration: 1 mg/ml by Nanodrop;

**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:**

58 kDa

**Purification Method:**

Protein A purification

**CloneNo.:**

2E17

## Applications

**Tested Applications:**

WB, FC, Indirect ELISA

**Species Specificity:**

Human

## 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)

## Storage

**Storage:**

Store at -80°C.

**Storage Buffer:**

PBS Only

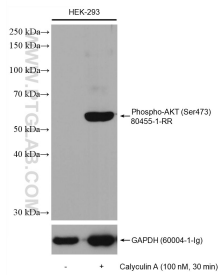
For technical support and original validation data for this product please contact:

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

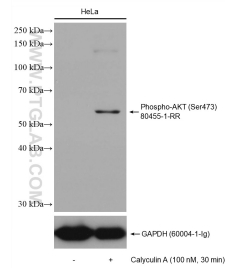
E: [proteintech@ptglab.com](mailto:proteintech@ptglab.com)  
W: [ptglab.com](http://ptglab.com)

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

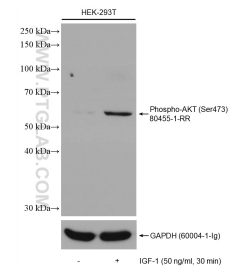
## Selected Validation Data



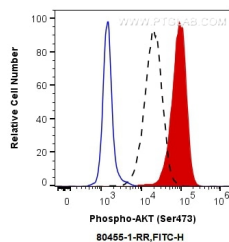
Non-treated and Calyculin A treated HEK-293 cells were subjected to SDS PAGE followed by western blot with 80455-1-RR (Phospho-AKT (Ser473) antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours. The membrane was stripped and re-blotted with GAPDH antibody as loading control. This data was developed using the same antibody clone with 80455-1-PBS in a different storage buffer formulation.



Non-treated and Calyculin A treated HeLa cells were subjected to SDS PAGE followed by western blot with 80455-1-RR (Phospho-AKT (Ser473) antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours. The membrane was stripped and re-blotted with GAPDH antibody as loading control. This data was developed using the same antibody clone with 80455-1-PBS in a different storage buffer formulation.



Non-treated and IGF-1 treated HEK-293T cells were subjected to SDS PAGE followed by western blot with 80455-1-RR (Phospho-AKT (Ser473) antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours. The membrane was stripped and re-blotted with GAPDH antibody as loading control. This data was developed using the same antibody clone with 80455-1-PBS in a different storage buffer formulation.



1X10<sup>6</sup> HEK-293 cells untreated (dashed lines) or treated with Calyculin A (red) were intracellularly stained with 0.25 ug Anti-Human Phospho-AKT (Ser473) (80455-1-RR, Clone:2E17) and CoraLite® 488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) at dilution 1:1000, or 0.25 ug Control Antibody (blue). Cells were fixed with 4% PFA and permeabilized with 80% MeOH. This data was developed using the same antibody clone with 80455-1-PBS in a different storage buffer