

For Research Use Only

Phospho-AKT1 (Ser473) Recombinant antibody, PBS Only

Catalog Number: 80462-1-PBS



Basic Information

Catalog Number:

80462-1-PBS

Size:

100ug, Concentration: 1mg/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:

56-62 kDa

Purification Method:

Protein A purification

CloneNo.:

2M10

Applications

Tested Applications:

WB, FC (Intra), 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). 80462-1-RR specifically recognizes AKT1 phosphorylated at Ser473.

Storage

Storage:

Store at -80°C.

Storage Buffer:

PBS Only

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

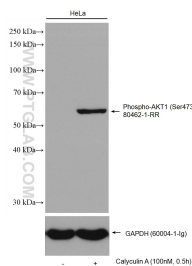
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E: proteintech@ptglab.com

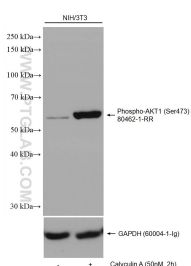
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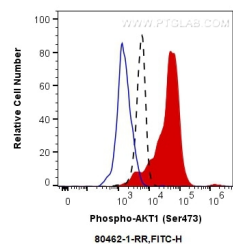
Selected Validation Data



Non-treated and Calyculin A treated HeLa cells were subjected to SDS PAGE followed by western blot with 80462-1-RR (Phospho-AKT (Ser473) antibody) at dilution of 1:5000 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 80462-1-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 80462-1-RR (Phospho-AKT (Ser473) antibody) at dilution of 1:5000 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 80462-1-PBS in a different storage buffer formulation.



1X10⁶ NIH/3T3 cells untreated (dashed line) or treated with Calyculin A (red) were intracellularly stained with 0.5 ug Anti-Human Phospho-AKT1 (Ser473) (80462-1-RR, Clone:2M10) and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) at dilution 1:1000, or 0.5 ug Control Antibody (blue). Cells were fixed with 4% PFA and permeabilized with 90% MeOH. This data was developed using the same antibody clone with 80462-1-PBS in a different storage buffer formulation.