

For Research Use Only



# CoraLite® Plus 647-conjugated Phospho-AKT1 (Ser473) Recombinant antibody

Catalog Number: **CL647-80462**

## Basic Information

<b>Catalog Number:</b> CL647-80462	<b>GenBank Accession Number:</b> NM_005163	<b>Purification Method:</b> Protein A purification
<b>Size:</b> 100ul , Concentration: 1000 µg/ml by Nanodrop;	<b>GeneID (NCBI):</b> 207	<b>CloneNo.:</b> 2M10
<b>Source:</b> Rabbit	<b>Full Name:</b> v-akt murine thymoma viral oncogene homolog 1	<b>Excitation/Emission maxima wavelengths:</b> 650 nm / 665 nm
<b>Isotype:</b> IgG	<b>Observed MW:</b> 56-62 kDa	

## Applications

**Tested Applications:**  
FC (Intra)

**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

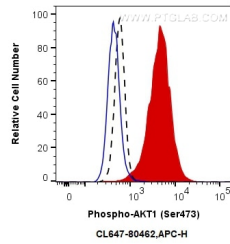
**Storage:**  
Store at -20°C. Avoid exposure to light.  
**Storage Buffer:**  
PBS with 50% Glycerol, 0.05% Proclin300, 0.5% BSA, pH 7.3.  
**Aliquoting is unnecessary for -20°C storage**

**\*\*\* 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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## Selected Validation Data



$1 \times 10^6$  NIH/3T3 cells untreated (dashed line) or treated with Calyculin A (red) were intracellularly stained with 0.13  $\mu$ g Coralite® Plus 647 Anti-Human Phospho-AKT1 (Ser473) (CL647-80462, Clone:2M10) (red), or 0.13  $\mu$ g Control Antibody (Blue). Cells were fixed with 4% PFA and permeabilized with 90% MeOH.