

For Research Use Only

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

Catalog Number: **CL647-80462**



Basic Information

Catalog Number: CL647-80462	GenBank Accession Number: NM_005163	Purification Method: Protein A purification
Size: 100ul , Concentration: 1000 ug/ml by Nanodrop;	GeneID (NCBI): P31749	CloneNo.: 2M10
Source: Rabbit	UNIPROT ID: P31749	Recommended Dilutions: IF/ICC 1:50-1:500
Isotype: IgG	Full Name: v-akt murine thymoma viral oncogene homolog 1	Excitation/Emission maxima wavelengths: 654 nm / 674 nm
	Observed MW: 56-62 kDa	

Applications

Tested Applications: IF/ICC, FC (Intra)	Positive Controls: IF/ICC : Calyculin A treated HeLa cells,
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.

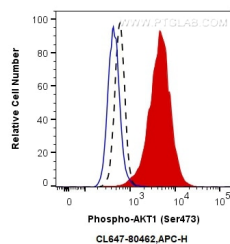
Storage

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

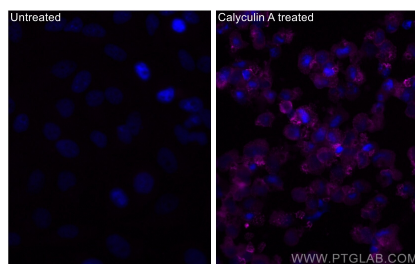
For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
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Selected Validation Data



1X10⁶ NIH/3T3 cells untreated (dashed line) or treated with Calyculin A (red) were intracellularly stained with 0.13 ug CoraLite® Plus 647 Anti-Human Phospho-AKT1 (Ser473) (CL647-80462, Clone:2M10) (red), or 0.13 ug Control Antibody (Blue). Cells were fixed with 4% PFA and permeabilized with 90% MeOH.



Immunofluorescent analysis of (4% PFA) fixed Calyculin A treated HeLa cells using CoraLite® Plus 647 Phospho-AKT1 (Ser473) antibody (CL647-80462, Clone: 2M10) at dilution of 1:200.