For Research Use Only

Phospho-AKT (Ser473) Recombinant monoclonal antibody

Catalog Number:80462-2-RR

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Antibodies | ELISA kits | Proteins
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Basic Information

Catalog Number:
80462-2-RR

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.:
253264G12

Recommended Dilutions:
WB: 1:1000-1:4000

Applications

Tested Applications:
WB, ELISA

Species Specificity:
human, mouse, rat

Positive Controls:

WB : Calyculin A treated HepG2 cells, Calyculin A treated C2C12 cells, HEK-293 cells, Calyculin A treated HSC-T6 cells, Calyculin A treated NIH/3T3 cells, Calyculin A treated HEK-293 cells, HepG2 cells

Background Information

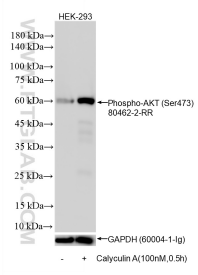
AKT is a serine/threonine kinase and it participates in the key role of the PI3K signaling pathway. Phosphatidylinositol-3 kinase (PI3K) is the key regulator of AKT activation. The recruitment of inactive AKT protein to PIP3-rich areas of the plasma membrane results in a conformational change that exposes 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

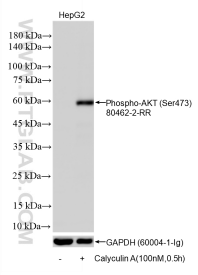
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol, pH7.3
Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:
T: 4006900926 E: Proteintech-CN@ptglab.com W: ptgcn.com

Selected Validation Data



Non-treated and Calyculin A treated HEK-293 cells were subjected to SDS PAGE followed by western blot with 80462-2-RR (Phospho-AKT (Ser473) antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours. The membrane was stripped and re-blotted with GAPDH antibody (60004-1-Ig) as loading control.



Non-treated and Calyculin A treated HepG2 cells were subjected to SDS PAGE followed by western blot with 80462-2-RR (Phospho-AKT (Ser473) antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours. The membrane was stripped and re-blotted with GAPDH antibody (60004-1-Ig) as loading control.