

CoraLite® Plus 488-conjugated Phospho-AKT (Thr308) Recombinant monoclonal antibody

Catalog Number: **CL488-81232-10**

Basic Information

Catalog Number:

CL488-81232-10

Source:

Rabbit

Isotype:

IgG

GenBank Accession Number:

BC000479

GeneID (NCBI):

207

UNIPROT ID:

P31749

Full Name:

v-akt murine thymoma viral oncogene homolog 1

Calculated MW:

56 kDa

Observed MW:

60 kDa

Purification Method:

Protein A purification

CloneNo.:

242063B2

Recommended Dilutions:FC (Intra): 0.25 ug per 10⁶ cells in a 100 µl suspension**Excitation/Emission maxima wavelengths:**

493 nm / 522 nm

Applications

Tested Applications:

FC (Intra)

Species Specificity:

human, mouse, rat

Positive Controls:

FC (Intra): Calyculin A treated HeLa 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:

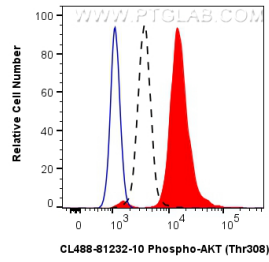
Store at -20°C. Avoid exposure to light. Stable for one year after shipment.

Storage Buffer:

PBS with 50% glycerol, 0.05% Proclin300, 0.5% BSA, pH7.3

Aliquoting is unnecessary for -20°C storage

Selected Validation Data



1X10⁶ HeLa cells untreated (dashed lines) or treated with Calyculin A which intracellularly stained with 0.25 ug Coralite® Plus 488 Phospho-AKT (Thr308) Recombinant Antibody (CL488-81232-10, Clone:242063B2)(red), or 0.25 ug Isotype Control (blue). Cells were fixed and permeabilized with Flow Cytometry Phosphorylated Protein Fixation/Permeabilization Kit (PF00026).