

# CoraLite<sup>®</sup> Plus 488-conjugated Phospho-AKT (Ser473) Recombinant antibody

**Catalog Number:** CL488-80455

## Basic Information

**Catalog Number:**

CL488-80455

**Size:**

1000 µg/ml

**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.:**

2E17

**Excitation/Emission maxima  
wavelengths:**

493 nm / 522 nm

## Applications

**Tested Applications:**

FC (Intra)

**Species Specificity:**

Human

## 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, pH 7.3.

Aliquoting is unnecessary for -20°C storage

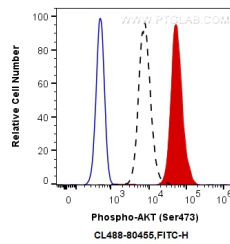
For technical support and original validation data for this product please contact:

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## Selected Validation Data



$1 \times 10^6$  HEK-293 cells untreated (dashed lines) or treated with Calyculin A (red) were intracellularly stained with 0.13  $\mu$ g CoraLite® Plus 488 Anti-Human Phospho-AKT (Ser473) (CL488-80455, Clone:2E17), or 0.13  $\mu$ g Control Antibody (blue). Cells were fixed with 4% PFA and permeabilized with 80% MeOH.