

For Research Use Only

Phospho-FOXO3A (Ser315) Polyclonal antibody

Catalog Number: 28755-1-AP

13 Publications



Basic Information

Catalog Number:

28755-1-AP

Source:

Rabbit

Isotype:

IgG

GenBank Accession Number:

BC021224

GeneID (NCBI):

2309

UNIPROT ID:

O43524

Full Name:

forkhead box O3

Calculated MW:

673 aa, 71 kDa

Observed MW:

80-90 kDa

Purification Method:

Antigen affinity purification

Recommended Dilutions:

WB: 1:500-1:2000

Applications

Tested Applications:

WB, ELISA

Cited Applications:

WB, IHC, IF

Species Specificity:

human, mouse, rat

Cited Species:

human, mouse, rat, bovine

Positive Controls:

WB : Calyculin A treated PC-3 cells, HeLa cells, PC-3 cells, TGF beta 1 treated HeLa cells, Forskolin treated PC-3 cells

Background Information

In mammalian cells, FoxO factors act as potent transcriptional activators that upregulate the expression of programs of genes involved in stress resistance, cell cycle arrest, differentiation, apoptosis, autophagy, and metabolism. FOXO3 has a key role in the maintenance of adult neural and hematopoietic stem cells. It also associates with extreme longevity in humans and regulates the homeostasis of adult stem cell pools in mammals, which may contribute to longevity. Phosphorylation inhibits FOXO3 nuclear translocation that is essential for its regulation and function. The calculated molecular weight of FOXO3 is 71 kDa, but some experiments analysis using a FOXO3a specific antibody showed the expression of a 90 kDa full length FOXO3a protein (Full) and a 40 kDa processed FOXO3a product (Short). 90 kDa FOXO3a protein is a phosphorylated via activation of PI3K (phosphatidylinositol 3-kinase) and Akt after INS stimulation, and translocate from the nucleus to the cytoplasm. (PMID: 19427386). IKBKE directly activates Akt and that Akt inhibits FOXO3a by phosphorylation of Ser32, Ser253 and Ser315.

Notable Publications

| Author | Pubmed ID | Journal | Application |
|------------------|-----------|------------------------|-------------|
| Jing Zhang | 34655600 | Exp Cell Res | |
| Qi Liang | 40373709 | Ecotoxicol Environ Saf | WB |
| Toshimichi Ishii | 40350304 | J Reprod Dev | IF |

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:

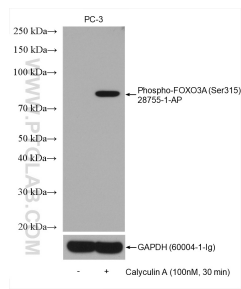
T: 4006900926

E: Proteintech-CN@ptglab.com

W: ptgcn.com

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Selected Validation Data



Non-treated PC-3 and Calyculin A treated PC-3 cells were subjected to SDS PAGE followed by western blot with 28755-1-AP (Phospho-FOXO3A (Ser315) antibody) at dilution of 1:1000 incubated at 4°C overnight. The membrane was stripped and re-blotted with GAPDH antibody as loading control.