

## FoxO3a (Phospho Ser318/321) Rabbit pAb

CatalogNo: YP1339

### Key Features

#### Host Species

- Rabbit

#### Reactivity

- Human, Mouse, Rat

#### Applications

- WB

#### MW

- 90kD (Observed)

#### Isotype

- IgG

### Storage

**Storage\*** -15°C to -25°C/1 year (Do not lower than -25°C)

**Formulation** Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

### Recommended Dilution Ratios

WB 1:1000-2000

### Basic Information

**Clonality** Polyclonal

### Immunogen Information

**Immunogen** Synthesized phospho peptide around human FoxO3a (Ser318 and 321)

**Specificity** This antibody detects endogenous levels of FoxO3a only when phosphorylated at Ser318 or Ser321, and dually phosphorylated at two sites.

### Target Information

**Gene name** FOXO3 FKHRL1 FOXO3A

**Protein Name** FoxO3a (Ser318/321)

Organism	Gene ID	UniProt ID
Human	<a href="#">2309</a> ;	<a href="#">O43524</a> ;
Mouse	<a href="#">56484</a> ;	<a href="#">Q9WVH4</a> ;

**Cellular Localization**

Cytoplasm , cytosol . Nucleus . Mitochondrion matrix . Mitochondrion outer membrane ; Peripheral membrane protein ; Cytoplasmic side . Retention in the cytoplasm contributes to its inactivation (PubMed:10102273 , PubMed:15084260 , PubMed:16751106) . Translocates to the nucleus upon oxidative stress and in the absence of survival factors (PubMed:10102273 , PubMed:16751106) . Translocates from the cytosol to the nucleus following dephosphorylation in response to autophagy-inducing stimuli (By similarity) . Translocates in a AMPK-dependent manner into the mitochondrion in response to metabolic stress (PubMed:23283301 , PubMed:29445193) . Serum deprivation increases localization to the nucleus , leading to activate expression of SOX9 and subsequent chondrogenesis (By similarity) . .

**Tissue specificity** Ubiquitous.

**Function**

Disease:A chromosomal aberration involving FOXO3 is found in secondary acute leukemias. Translocation t (6;11) (q21;q23) with MLL/HRX. ,Function:Transcriptional activator which triggers apoptosis in the absence of survival factors , including neuronal cell death upon oxidative stress. Recognizes and binds to the DNA sequence 5'-[AG]TAAA[TC]A-3'. ,PTM:In the presence of survival factors such as IGF-1 , phosphorylated on Thr-32 and Ser-253 by AKT1/PKB. This phosphorylated form then interacts with 14-3-3 proteins and is retained in the cytoplasm. Survival factor withdrawal induces dephosphorylation and promotes translocation to the nucleus where the dephosphorylated protein induces transcription of target genes and triggers apoptosis. Although AKT1/PKB doesn't appear to phosphorylate Ser-315 directly , it may activate other kinases that trigger phosphorylation at this residue. Phosphorylated by STK4 on Ser-209 upon oxidative stress , which leads to dissociation from YWHAB/14-3-3-beta and nuclear translocation. ,similarity:Contains 1 fork-head DNA-binding domain. ,subcellular location:Translocates to the nucleus upon oxidative stress and in the absence of survival factors. ,subunit:Interacts with YWHAB/14-3-3-beta and YWHAZ/14-3-3-zeta , which are required for cytosolic sequestration. Upon oxidative stress , interacts with STK4 , which disrupts interaction with YWHAB/14-3-3-beta and leads to nuclear translocation. ,tissue specificity:Ubiquitous. ,

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## | Validation Data

## | Contact information

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