

FoxO3a (Phospho Ser7) Rabbit pAb

CatalogNo: YP1342

Key Features

Host SpeciesRabbit

Reactivity

Human,Mouse,Rat

Applications
• WB

MW • 90kD (Observed) Isotype • IgG

Recommended Dilution Ratios

WB 1:1000-2000

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.

Basic Information

Clonality Polyclonal

Immunogen Information

Immunogen	Synthesized phosho peptide around human FoxO3a (Ser7)
Specificity	This antibody detects endogenous levels of Human Mouse Rat FoxO3a (phospho-Ser7)

Target Information

Gene name FOXO3 FKHRL1 FOXO3A

Organism	Gene ID	UniProt ID
Human	<u>2309;</u>	<u>043524;</u>
Mouse	<u>56484;</u>	<u>Q9WVH4;</u>

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)(g21:g23) 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/14-3-3zeta, 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.,

Validation Data

Contact information

Orders:	order@immunoway.com
Support:	tech@immunoway.com
Telephone:	877-594-3616 (Toll Free), 408-747-0185
Website:	http://www.immunoway.com
Address:	2200 Ringwood Ave San Jose, CA 95131 USA



Please scan the QR code to access additional product information: FoxO3a (Phospho Ser7) Rabbit pAb For Research Use Only. Not for Use in Diagnostic Procedures.

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