Best Tools for immunology Research

FoxO3a (Phospho Ser425) rabbit pAb

Catalog No :	YP1341
Reactivity :	Human;Rat;Mouse;
Applications :	WB
Target :	FoxO3a
Fields :	>>EGFR tyrosine kinase inhibitor resistance;>>Chemokine signaling pathway;>>FoxO signaling pathway;>>Mitophagy - animal;>>PI3K-Akt signaling pathway;>>AMPK signaling pathway;>>Longevity regulating pathway;>>Longevity regulating pathway - multiple species;>>Cellular senescence;>>Neurotrophin signaling pathway;>>Prolactin signaling pathway;>>Alcoholic liver disease;>>Shigellosis;>>Chemical carcinogenesis - reactive oxygen species;>>Endometrial cancer;>>Non-small cell lung cancer
Gene Name :	FOXO3 FKHRL1 FOXO3A
Protein Name :	FoxO3a (Ser425)
Human Gene Id :	2309
Human Swiss Prot No :	O43524
Mouse Gene Id :	56484
Mouse Swiss Prot No :	Q9WVH4
Immunogen :	Synthesized phosho peptide around human FoxO3a (Ser425)
Specificity :	This antibody detects endogenous levels of Human FoxO3a (phospho-Ser425)
Formulation :	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source :	Polyclonal, Rabbit,IgG
Dilution :	WB 1:1000-2000

Purification : The antibody was affinity-purified from rabbit serum by affinity-chromatography using specific immunogen.

Concentration : 1 mg/ml

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

Observed Band : 90kD

Cell Pathway : Insulin Receptor; B Cell Receptor; PI3K/Akt; Protein_Acetylation

Background : This gene belongs to the forkhead family of transcription factors which are characterized by a distinct forkhead domain. This gene likely functions as a trigger for apoptosis through expression of genes necessary for cell death. Translocation of this gene with the MLL gene is associated with secondary acute leukemia. Alternatively spliced transcript variants encoding the same protein have been observed. [provided by RefSeq, Jul 2008],

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 ST

Subcellular Location : 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). .

Expression : Ubiquitous.

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