Anti-Phospho-FOXO3-(S253) Antibody

Description	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.

Model	STJ114850
Host	Rabbit
Reactivity	Human
Applications	WB
Immunogen	A synthetic phosphorylated peptide around S253 of human FOXO3 (NP_001446.1).
Gene ID	2309
Gene Symbol	FOXO3
Dilution range	WB 1:500 - 1:2000
Tissue Specificity	Ubiquitous
Purification	Affinity purification
Note	For Research Use Only (RUO).
Protein Name	Forkhead box protein O3 AF6q21 protein Forkhead in rhabdomyosarcoma-like 1
Molecular Weight	71.277 kDa

Clonality	Polyclonal
Conjugation	Unconjugated
Isotype	IgG
Formulation	PBS with 0.02% sodium azide, 50% glycerol, pH7.3.
Storage Instruction	Store at -20C. Avoid freeze / thaw cycles.
Database Links	HGNC:3821OMIM:602681Reactome:R-HSA-1181150
Alternative Names	Forkhead box protein O3 AF6q21 protein Forkhead in rhabdomyosarcoma-like 1
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', Participates in post-transcriptional regulation of MYC: following phosphorylation by MAPKAPK5, promotes induction of miR-34b and miR-34c expression, 2 post-transcriptional regulators of MYC that bind to the 3'UTR of MYC transcript and prevent its translation,
Cellular Localization	Cytoplasm, cytosol
Post-translational Modifications	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/MST1 on Ser-209 upon oxidative stress, which leads to dissociation from YWHAB/14-3-3-beta and nuclear translocation, Phosphorylated by PIM1, Phosphorylation by AMPK leads to the activation of transcriptional activity without affecting subcellular localization, Phosphorylation by MAPKAPK5 promotes nuclear localization and DNA-binding, leading to induction of miR-34b and miR-34c expression, 2 post-transcriptional regulators of MYC that bind to the 3'UTR of MYC transcript and prevent its translation ,