

Product name:	FoxO4 (phospho Thr451) Rabbit Polyclonal Antibody
Cat number:	ABN04706
Conjugate:	Unconjugated
Size:	100µL
Clone:	Polyclonal
Concentration:	1mg/ml
Host:	Rabbit
Isotype:	IgG
Immunogen:	The antiserum was produced against synthesized peptide derived from human FOXO4 around the phosphorylation site of Thr451. AA range:417-466
Reactivity:	Human,Mouse
Applications:	WB 1:500-1:2000,ELISA 1:20000-1:40000
Molecular Weight:	55kDa
Purification:	Affinity purification
Form:	Liquid
Buffer:	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Storage:	Store at 4°C short term. Aliquot and store at -20°C for 12 months. Avoid freeze/thaw cycles.

Background:

This gene encodes a member of the O class of winged helix/forkhead transcription factor family. Proteins encoded by this class are regulated by factors involved in growth and differentiation indicating they play a role in these processes. A translocation involving this gene on chromosome X and the homolog of the *Drosophila trithorax* gene, encoding a DNA binding protein, located on chromosome 11 is associated with leukemia. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jan 2010], disease: A chromosomal aberration involving FOXO4 is found in acute leukemias. Translocation t(X;11)(q13;q23) with MLL/HRX. The result is a rogue activator protein., function: Transcription factor involved in the regulation of the insulin signaling pathway. Binds to insulin-response elements (IREs) and can activate transcription of IGFBP1. Down-regulates expression of HIF1A and suppresses hypoxia-induced transcriptional activation of HIF1A-modulated genes. Also involved in negative regulation of the cell cycle., pharmaceutical: A constitutively active FOXO4 mutant where phosphorylation sites Thr-32, Ser-187 and Ser-262 have been mutated to alanine may have therapeutic potential in ERBB2/HER2-overexpressing cancers as it inhibits ERBB2-mediated cell survival, transformation and tumorigenicity., PTM: Acetylation by CBP, which is induced by peroxidase stress, inhibits transcriptional activity. Deacetylation by SIRT1 is NAD-dependent and stimulates transcriptional activity., PTM: Phosphorylation by PKB/AKT1 inhibits transcriptional activity and is responsible for cytoplasmic localization., similarity: Contains 1 fork-head DNA-binding domain., subcellular location: When phosphorylated, translocated from nucleus to cytoplasm. Dephosphorylation triggers nuclear translocation., subunit: Interacts with CBP, MYOCD, SIRT1, SRF and YWHAZ. Acetylated by CBP and deacetylated by SIRT1. Binding of YWHAZ inhibits DNA-binding., tissue specificity: Heart, brain, placenta, lung, liver, skeletal muscle, kidney and pancreas. Isoform zeta is most abundant in the liver, kidney, and pancreas.,