

Product Name: FoxO4 (phospho Thr451) Rabbit Polyclonal Antibody
Catalog #: APRab04706

Summary

Production Name	FoxO4 (phospho Thr451) Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	WB,ELISA
Reactivity	Human,Mouse

Performance

Conjugation	Unconjugated
Modification	Phospho Antibody
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	FOXO4
Alternative Names	FOXO4; AFX; AFX1; MLLT7; Forkhead box protein O4; Fork head domain transcription factor AFX1
Gene ID	4303.0
SwissProt ID	P98177.The antiserum was produced against synthesized peptide derived from human FOXO4 around the phosphorylation site of Thr451. AA range:417-466

Application

Dilution Ratio	WB 1:500-1:2000, ELISA 1:40000.Not yet tested in other applications.
Molecular Weight	55kDa

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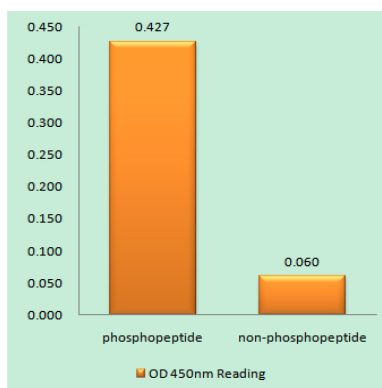
Background

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.,

Research Area

Insulin Receptor; B Cell Receptor; Protein_Acetylation

Image Data

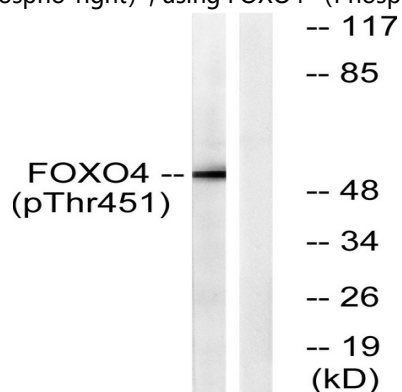


Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-

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Phosphopeptide (Phospho-right) , using FOXO4 (Phospho-Thr451) Antibody



Western blot analysis of lysates from HUVEC cells treated with EGF 200ng/ml 5', using FOXO4 (Phospho-Thr451) Antibody. The lane on the right is blocked with the phospho peptide.

Note

For research use only.