



Rabbit Anti-phospho-FOXO4 (Ser197) antibody

SL3144R

Product Name:	phospho-FOXO4 (Ser197)
Chinese Name:	磷酸化叉头蛋白4抗体
Alias:	FOXO4 (phospho S197); p-FOXO4 (phospho S197); AFX(Phospho-Ser197); Fork head domain transcription factor AFX1; AFX; AFX1; Afxh; ALL1-fused gene from X chromosome; Fork head domain transcription factor AFX1; Forkhead box O4; Forkhead box protein O4; FOXO 4; Mixed lineage leukemia, translocated to, 7; MLLT7; Myeloid lymphoid or mixed lineage leukemia translocated to 7; Myeloid/lymphoid or mixed lineage leukemia, translocated to, 7; Putative fork head domain transcription factor AFX1.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Chicken,Dog,Pig,Cow,Horse,Rabbit,
Applications:	WB=1:500-2000ELISA=1:500-1000 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	54kDa
Cellular localization:	The nucleuscytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated Synthesised phosphopeptide derived from human FOXO4 around the phosphorylation site of Ser197:AA(p-S)MD
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed

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]

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.

Subunit:

Interacts with CREBBP/CBP, CTNNB1, MYOCD, SIRT1, SRF and YWHAZ. Acetylated by CREBBP/CBP and deacetylated by SIRT1. Binding of YWHAZ inhibits DNA-binding. Interacts with USP7; the interaction is enhanced in presence of hydrogen peroxide and occurs independently of TP53. Interacts with NLK, and this inhibits monoubiquitination and transcriptional activity.

Subcellular Location:

Cytoplasm. Nucleus. When phosphorylated, translocated from nucleus to cytoplasm. Dephosphorylation triggers nuclear translocation. Monoubiquitination increases nuclear localization. When deubiquitinated, translocated from nucleus to cytoplasm.

Tissue Specificity:

Heart, brain, placenta, lung, liver, skeletal muscle, kidney and pancreas. Isoform zeta is most abundant in the liver, kidney, and pancreas.

Post-translational modifications:

Acetylation by CBP, which is induced by peroxidase stress, inhibits transcriptional activity. Deacetylation by SIRT1 is NAD-dependent and stimulates transcriptional activity. Phosphorylation by PKB/AKT1 inhibits transcriptional activity and is responsible for cytoplasmic localization. Monoubiquitinated; monoubiquitination is induced by oxidative stress and reduced by deacetylase inhibitors; results in its relocalization to the nucleus and its increased transcriptional activity. Deubiquitinated by USP7; deubiquitination is induced by oxidative stress; enhances its interaction with USP7 and consequently, deubiquitination; increases its translocation to the cytoplasm and inhibits its transcriptional activity. Hydrogene-peroxide-induced ubiquitination and USP7-mediated deubiquitination have no major effect on its protein stability.

DISEASE:

Note=A chromosomal aberration involving FOXO4 is found in acute leukemias.

Product Detail:

Translocation t(X;11)(q13;q23) with MLL/HRX. The result is a rogue activator protein.

Similarity:

Contains 1 fork-head DNA-binding domain.

SWISS:

P98177

Gene ID:

4303

Database links:

[Entrez Gene: 4303](#) Human

[Entrez Gene: 54601](#) Mouse

[Entrez Gene: 302415](#) Rat

[Omid: 300033](#) Human

[SwissProt: P98177](#) Human

[SwissProt: Q9WVH3](#) Mouse

[Unigene: 584654](#) Human

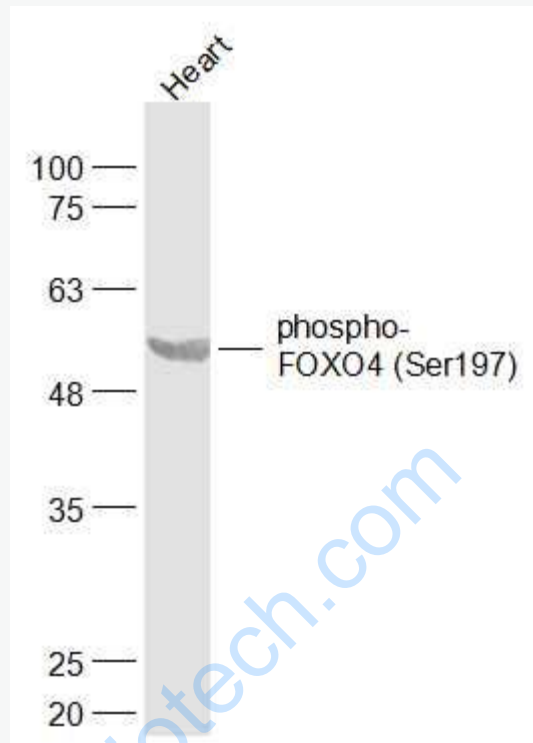
[Unigene: 240299](#) Mouse

[Unigene: 19646](#) Rat

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Picture:



Sample:

Heart (Mouse) Lysate at 40 ug

Primary: Anti-phospho-FOXO4 (Ser197) (SL3144R) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 54 kD

Observed band size: 54 kD