

Datasheet for ABIN680383
anti-FOXO4 antibody



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1 Image

Overview

Quantity:	100 µL
Target:	FOXO4
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This FOXO4 antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunofluorescence (Cultured Cells) (IF (cc)), Immunofluorescence (Paraffin-embedded Sections) (IF (p)), Immunohistochemistry (Paraffin- embedded Sections) (IHC (p)), Immunohistochemistry (Frozen Sections) (IHC (fro))

Product Details

Immunogen:	synthetic peptide from human FOXO4 conjugated to KLH
Isotype:	IgG
Specificity:	This antibody will detect both FOXO1 and FOXO4
Cross-Reactivity:	Human, Mouse
Predicted Reactivity:	Rat,Dog,Cow,Horse,Chicken
Purification:	Purified by Protein A.

Target Details

Target:	FOXO4
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Target Details

Alternative Name: Foxo4 ([FOXO4 Products](#))

Background: Synonyms: 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, FOXO4_HUMAN, FKH1, FKHR, FOXO1A, Forkhead box protein O1, Forkhead box protein O1A, Forkhead in rhabdomyosarcoma, FOXO1

Background: FOXO1 is a transcription factor that is the main target of insulin signaling and regulates metabolic homeostasis in response to oxidative stress. Binds to the insulin response element (IRE) with consensus sequence 5'-TT[G/A]TTTTG-3' and the related Daf-16 family binding element (DBE) with consensus sequence 5'-TT[G/A]TTTAC-3'. Activity suppressed by insulin. Main regulator of redox balance and osteoblast numbers and controls bone mass. Orchestrates the endocrine function of the skeleton in regulating glucose metabolism. Acts synergistically with ATF4 to suppress osteocalcin/BGLAP activity, increasing glucose levels and triggering glucose intolerance and insulin insensitivity. Also suppresses the transcriptional activity of RUNX2, an upstream activator of osteocalcin/BGLAP. In hepatocytes, promotes gluconeogenesis by acting together with PPARGC1A and CEBPA to activate the expression of genes such as IGFBP1, G6PC and PCK1. Important regulator of cell death acting downstream of CDK1, PKB/AKT1 and STK4/MST1. Promotes neural cell death. Mediates insulin action on adipose tissue. Regulates the expression of adipogenic genes such as PPARG during preadipocyte differentiation and, adipocyte size and adipose tissue-specific gene expression in response to excessive calorie intake. Regulates the transcriptional activity of GADD45A and repair of nitric oxide-damaged DNA in beta-cells. Required for the autophagic cell death induction in response to starvation or oxidative stress in a transcription-independent manner. FOXO4 is a forkhead transcription factor involved in the regulation of the insulin signaling pathway. It binds to insulin-response elements (IREs) and can activate transcription of IGFBP1. FOXO4 down-regulates expression of HIF1A and suppresses hypoxia-induced transcriptional activation of HIF1A-modulated genes. It is also involved in negative regulation of the cell cycle.

Gene ID: 4303

UniProt: [P98177](#)

Pathways: [Cell Division Cycle](#), [Fc-epsilon Receptor Signaling Pathway](#), [EGFR Signaling Pathway](#), [Neurotrophin Signaling Pathway](#), [Regulation of Muscle Cell Differentiation](#)

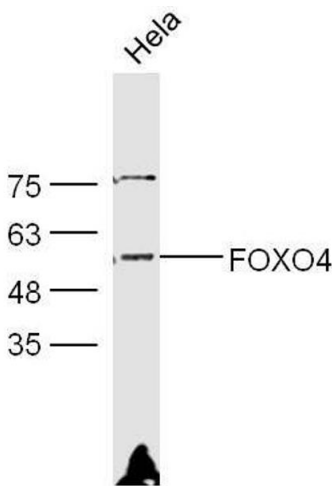
Application Details

Application Notes:	WB 1:100-1000 IHC-P 1:100-500 IF(IHC-P) 1:50-200
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	1 µg/µL
Buffer:	0.01M TBS(pH 7.4) with 1 % BSA, 0.02 % Proclin300 and 50 % Glycerol.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE, which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.
Expiry Date:	12 months

Images



Western Blotting

Image 1. HeLa lysates probed with Rabbit Anti-FOXO4 Polyclonal Antibody, Unconjugated at 1:300 overnight at 4°C. Followed by a conjugated secondary antibody for 90 min at 37°C.