Rabbit anti-Human, Mouse FOXO4 Polyclonal Antibody | anti-FOXO4 antibody

FOXO4 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA322365	**Rabbit**	**Human, Mouse**	**ELISA, Immunocytochemistry, Immunofluorescence, Western Blot**

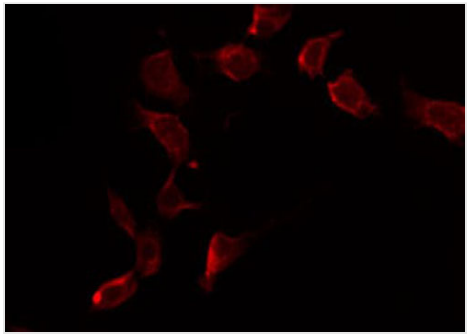
PRODUCT SYNONYMS

FOXO4; Polyclonal Antibody; FOXO4 Antibody; AFX; AFX1; Afxh; ALL1-fused gene from X chromosome; Fork head domain transcription factor AFX1; Forkhead box O4; Forkhead box protein O4; FOXO 4; Foxo4; FOXO4_HUMAN; MGC117660; MGC120490; Mixed lineage leukemia; translocated to; 7; MLLT7; Myeloid/lymphoid or mixed lineage leukemia (trithorax homolog; Drosophila); Myeloid/lymphoid or mixed lineage leukemia; RGD1561201; anti-FOXO4 antibody

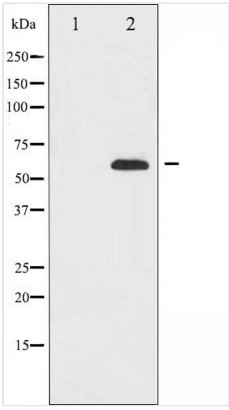
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse
Clonality	Polyclonal
Isotype	IgG
Specificity	FOXO4 antibody detects endogenous levels of total FOXO4
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	450
Applicable Applications for anti-FOXO4 antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), WB (Western Blot)
Immunogen	A synthesized peptide derived from human FOXO4
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.
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

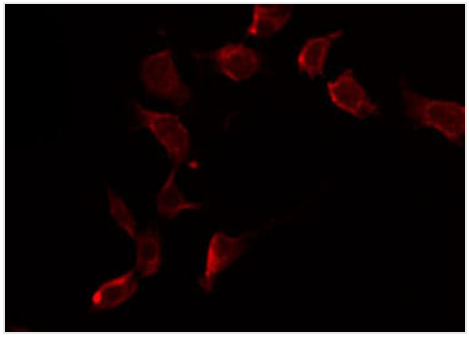
IMAGES



IF (Immunofluorescence)
AAA322365 staining HuvEc by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary antibody.



WB (Western Blot)
Western blot analysis of FOXO4 expression in K562 whole cell lysates, The lane on the left is treated with the antigen-specific peptide.



IF (Immunofluorescence)
AAA322365 staining HeLa cells by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) antibody, diluted at 1/600, was used as secondary antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-FOXO4 antibody	Description: FOXO4 is a transcription factor AFX1 containing 1 fork-head domain. May play a role in the insulin signaling pathway. Involved in acute leukemias by a chromosomal translocation t(X; 11)(q13; q23) that involves MLLT7 and MLL/HRX. 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. Involved in increased proteasome activity in embryonic stem cells (ESCs) by activating expression of PSMD11 in ESCs, leading to enhanced assembly of the 26S proteasome, followed by higher proteasome activity. Subunit Structure: 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. Interacts with FOXK1; the interaction inhibits MEF2C transactivation activity (By similarity). Post-translational Modifications: Acetylation by CREBBP/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. May be phosphorylated at multiple sites by NLK. 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.

NCBI AND UNIPROT INFORMATION

NCBI GI #	283436083
NCBI GeneID	4303
NCBI Accession #	NP_001164402.1
NCBI GenBank Nucleotide #	NM_001170931.1
UniProt Accession #	P98177; O43821; Q13720; Q3KPF1; Q8TDK9; B7WPJ7
Molecular Weight	Observed: 65 kDa Predicted: 54 kDa
NCBI Official Full Name	forkhead box protein O4 isoform 2
NCBI Official Synonym Full Names	forkhead box O4
NCBI Official Symbol	FOXO4
NCBI Official Synonym Symbols	AFX; AFX1; MLLT7
NCBI Protein Information	forkhead box protein O4
UniProt Protein Name	Forkhead box protein O4
UniProt Gene Name	**FOXO4**
UniProt Synonym Gene Names	AFX; AFX1; MLLT7

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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