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

Phospho-AFX (Ser197) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA31062	**Rabbit**	**Human, Mouse**	**Western Blot, Immunohistochemistry, Immunofluorescence, Immunocytochemistry, ELISA**

PRODUCT SYNONYMS

AFX; Polyclonal Antibody; Phospho-AFX (Ser197) Antibody; 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-AFX antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse
Clonality	Polyclonal
Isotype	IgG
Specificity	Phospho-AFX (Ser197) antibody detects endogenous levels of AFX only when phosphorylated at Serine 197
Purity/Purification	From purified rabbit serum by affinity purification via sequential chromatography on phospho-and non-phospho-peptide affinity columns.
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-AFX antibody	WB (Western Blot), IHC (Immunohistochemistry), IF (Immunofluorescence), ICC (Immunocytochemistry), ELISA
Application Notes	WB: 1:500-1:2000 IHC: 1:50-1:200 IF/ICC: 1:100-1:500
Immunogen	A synthesized peptide derived from human AFX around the phosphorylation site of Serine 197
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.
Predicted Cross Reactivity	**Pig, Zebrafish, Bovine, Horse, Sheep, Dog, Chicken, Xenopus**
Similarity	Pig (100%), Zebrafish (80%), Bovine (100%), Horse (100%), Sheep (100%), Dog (100%), Chicken (91%), Xenopus (91%)
Conjugation	Unconjugated
Epitope	Phospho Ser197
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES

WB (Western Blot)
Western blot analysis of AFX phosphorylation expression in serum treated 293 whole cell lysates, The lane on the left is treated with the antigen-specific peptide.

IF (Immunofluorescence)
AAA31062 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 Phospho-AFX (Ser197) expression in various lysates

IHC (Immunohistochemistry)
AAA31062 at 1/200 staining Rat spleen tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.

IHC (Immunohistochemistry)
AAA31062 at 1/200 staining Rat lung tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.

IHC (Immunohistochemistry)
AAA31062 at 1/200 staining Rat lung tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.

ADDITIONAL INFORMATION

Related Product Information for anti-AFX 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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