

Rabbit FKHRL1 Polyclonal Antibody | anti-FKHRL1 antibody

FKHRL1 Antibody

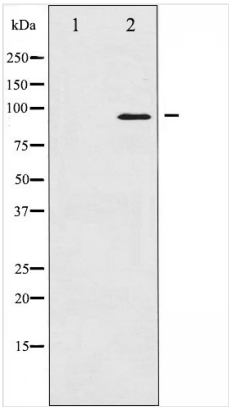
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA322142	Rabbit	Human, Mouse, Rat	ELISA, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

FKHRL1; Polyclonal Antibody; FKHRL1 Antibody; AF6q21; AF6q21 protein; DKFZp781A0677; FKHR2; FKHL 1; FKHL1P2; Forkhead (Drosophila) homolog (rhabdomyosarcoma) like 1; Forkhead box O3; Forkhead box O3A; Forkhead box protein O3; Forkhead box protein O3A; Forkhead Drosophila homolog of in rhabdomyosarcoma like 1; Forkhead homolog (rhabdomyosarcoma) like 1; Forkhead in rhabdomyosarcoma like 1; Forkhead in rhabdomyosarcoma-like 1; FOX O3A; FOXO2; foxo3; FOXO3_HUMAN; FOXO3A; MGC12739; MGC31925; anti-FKHRL1 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	FKHRL1 antibody detects endogenous levels of total FKHRL1
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	673
Applicable Applications for anti-FKHRL1 antibody	ELISA, IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human FKHRL1
Subcellular Location	Cytoplasm > Cytosol. Nucleus. Translocates to the nucleus upon oxidative stress and in the absence of survival factors.
Tissue Specificity	Ubiquitous.
Predicted Cross Reactivity	Pig, Bovine, Horse, Sheep, Rabbit, Dog, Chicken, Xenopus
Similarity	Pig (100%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%), Dog (100%), Chicken (100%), Xenopus (100%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



WB (Western Blot)

Western blot analysis of FKHL1 expression in serum treated NIH-3T3 whole cell lysates, The lane on the left is treated with the antigen-specific peptide.



IHC (Immunohistochemistry)

AAA322142 at 1/200 staining human colon carcinoma 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-FKHRL1 antibody	Description: This gene belongs to the forkhead family of transcription factors which are characterized by a distinct forkhead domain. This gene likely functions as a trigger for apoptosis through expression of genes necessary for cell death. Function: Transcriptional activator which triggers apoptosis in the absence of survival factors, including neuronal cell death upon oxidative stress (PubMed:10102273, PubMed:16751106). Recognizes and binds to the DNA sequence 5'-[AG]TAAA[TC]A-3' (PubMed:21329882). Participates in post-transcriptional regulation of MYC: following phosphorylation by MAPKAPK5, promotes induction of miR-34b and miR-34c expression, 2 post-transcriptional regulators of MYC that bind to the 3'UTR of MYC transcript and prevent its translation (PubMed:21329882). In response to metabolic stress, translocates into the mitochondria where it promotes mtDNA transcription (PubMed:23283301). Subunit Structure: Upon metabolic stress, forms a complex composed of FOXO3, SIRT3 and mitochondrial RNA polymerase POLRMT; the complex is recruited to mtDNA in a SIRT3-dependent manner (PubMed:23283301). Also forms a complex composed of FOXO3, SIRT3, TFAM and POLRMT (PubMed:29445193). Interacts with SIRT2; the interaction occurs independently of SIRT2 deacetylase activity (By similarity). Interacts with YWHAB/14-3-3-beta and YWHAZ/14-3-3-zeta, which are required for cytosolic sequestration (PubMed:16751106). Upon oxidative stress, interacts with STK4/MST1, which disrupts interaction with YWHAB/14-3-3-beta and leads to nuclear translocation (PubMed:16751106). Interacts with PIM1 (PubMed:18593906). Interacts with DDIT3/CHOP (PubMed:22761832). Interacts (deacetylated form) with SKP2 (PubMed:21841822). Interacts with CHUK and IKBKB (PubMed:15084260, PubMed:22313691). Interacts with CAMK2A, CAMK2B and calcineurin A (By similarity). Post-translational Modifications: In the presence of survival factors such as IGF-1, phosphorylated on Thr-32 and Ser-253 by AKT1/PKB. This phosphorylated form then interacts with 14-3-3 proteins and is retained in the cytoplasm. Survival factor withdrawal induces dephosphorylation and promotes translocation to the nucleus where the dephosphorylated protein induces transcription of target genes and triggers apoptosis. Although AKT1/PKB doesn't appear to phosphorylate Ser-315 directly, it may activate other kinases that trigger phosphorylation at this residue. Phosphorylated by STK4/MST1 on Ser-209 upon oxidative stress, which leads to dissociation from YWHAB/14-3-3-beta and nuclear translocation. Phosphorylated by PIM1. Phosphorylation by AMPK leads to the activation of transcriptional activity without affecting subcellular localization. In response to metabolic stress, phosphorylated by AMPK on Ser-30 which mediates FOXO3 mitochondrial translocation (PubMed:29445193). Phosphorylation by MAPKAPK5 promotes nuclear localization and DNA-binding, leading to induction of miR-34b and miR-34c expression, 2 post-transcriptional regulators of MYC that bind to the 3'UTR of MYC transcript and prevent its translation (PubMed:10102273, PubMed:11154281, PubMed:16751106, PubMed:17711846, PubMed:18593906, PubMed:21329882). Phosphorylated by CHUK/IKKA and IKBKB/IKKB. TNF-induced inactivation of FOXO3 requires its phosphorylation at Ser-644 by IKBKB/IKKB which promotes FOXO3 retention in the cytoplasm, polyubiquitination and ubiquitin-mediated proteasomal degradation (PubMed:15084260). May be dephosphorylated by calcineurin A on Ser-299 which abolishes FOXO3 transcriptional activity (By similarity). In cancer cells, ERK mediated-phosphorylation of Ser-12 is required for mitochondrial translocation of FOXO3 in response to metabolic stress or chemotherapeutic agents (PubMed:29445193). Deacetylation by SIRT1 or SIRT2 stimulates interaction of FOXO3 with SKP2 and facilitates SCF(SKP2)-mediated FOXO3 ubiquitination and proteasomal degradation (PubMed:21841822). Deacetylation by SIRT2 stimulates FOXO3-mediated transcriptional activity in response to oxidative stress (By similarity). Deacetylated by SIRT3 (PubMed:23283301). Deacetylation by SIRT3 stimulates FOXO3-mediated mtDNA transcriptional activity in response to metabolic stress (PubMed:23283301). Heavily methylated by SET9 which decreases stability, while moderately increasing transcriptional activity. The main methylation site is Lys-271. Methylation doesn't affect subcellular location. Polyubiquitinated. Ubiquitinated by a SCF complex containing SKP2, leading to proteasomal degradation. The N-terminus is cleaved following import into the mitochondrion.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	4503739
NCBI GeneID	2309
NCBI Accession #	NP_001446.1
NCBI GenBank Nucleotide #	NM_001455.3
UniProt Accession #	O43524; O15171; Q5T2I7; Q9BZ04; B4DVZ6; E1P5E6
Molecular Weight	Observed: 97 kDa Predicted: 72 kDa
NCBI Official Full Name	forkhead box protein O3

NCBI Official Synonym Full Names	forkhead box O3
NCBI Official Symbol	FOXO3
NCBI Official Synonym Symbols	FOXO2; AF6q21; FKHRL1; FOXO3A; FKHRL1P2
NCBI Protein Information	forkhead box protein O3
UniProt Protein Name	Forkhead box protein O3
UniProt Gene Name	FOXO3

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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Online datasheet: <https://stage.aaabiotech.com/polyclonal/fkhl1-antibody-immunohistochemistry-western-blot-elisa/322142>