

Product datasheet for **TA384252M**

FOXO1 Rabbit Monoclonal Antibody [Clone ID: R07-7C4]

Product data:

Product Type:	Primary Antibodies
Clone Name:	R07-7C4
Applications:	IF, IHC, WB
Recommended Dilution:	WB: 1/1000-1/5000 IHC: 1/50-1/200 ICC/IF: 1/20-1/50
Reactivity:	Human
Host:	Rabbit
Isotype:	IgG
Clonality:	Monoclonal
Immunogen:	A synthetic peptide of human FOXO1A
Formulation:	50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40% Glycerol, 0.01% Sodium azide and 0.05% BSA
Concentration:	lot specific
Purification:	Affinity Purified
Conjugation:	Unconjugated
Storage:	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Stability:	1 year
Predicted Protein Size:	Calculated MW: 70 kDa; Observed MW: 70 kDa
Gene Name:	forkhead box O1
Database Link:	Entrez Gene 2308 Human Q12778

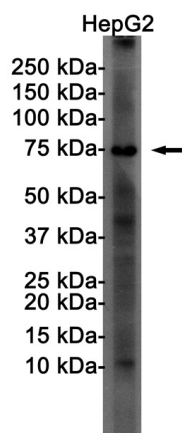
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Background:

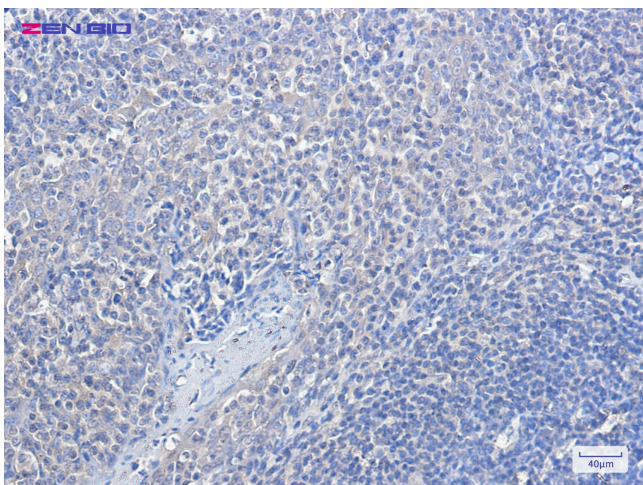
Swiss-Prot Acc.Q12778. Transcription factor that is the main target of insulin signaling and regulates metabolic homeostasis in response to oxidative stress. Binds to the insulin response element (IRE) with consensus sequence 5'-TT[G/A]TTTGG-3' and the related Daf-16 family binding element (DBE) with 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 SKT4/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. Mediates the function of MLIP in cardiomyocytes hypertrophy and cardiac remodeling.

Synonyms:

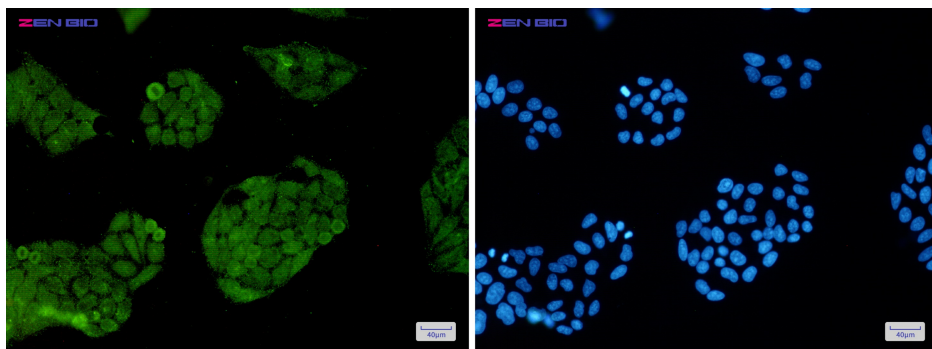
FKH1; FKHR; FOXO1A

Product images:


Western blot analysis of FOXO1A in HepG2 lysates using FOXO1 antibody.



Immunohistochemistry of FOXO1A in paraffin-embedded Human tonsil using FOXO1A Rabbit mAb at dilution 1/100



Immunocytochemistry of FOXO1A(green) in HeLa cells using FOXO1A Rabbit mAb at dilution 1/5, and DAPI(blue)