FOXO1/3/4-pan (Phospho-Thr24/32) Antibody

Catalog No: #11660

Package Size: #11660-1 50ul #11660-2 100ul

Orders: order@signalwayantibody.com
Support: tech@signalwayantibody.com

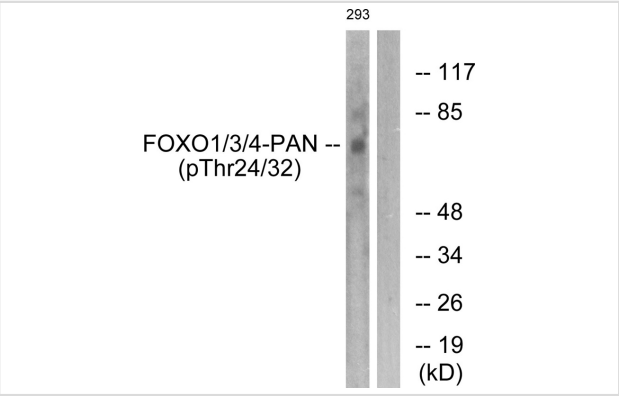
Description

Product Name	FOXO1/3/4-pan (Phospho-Thr24/32) Antibody
Host Species	Rabbit
Clonality	Polyclonal
Purification	Antibodies were produced by immunizing rabbits with synthetic phosphopeptide and KLH conjugates. Antibodies were purified by affinity-chromatography using epitope-specific phosphopeptide. Non-phospho specific antibodies were removed by chromatogramphy using non-phosphopeptide.
Applications	WB
Species Reactivity	Hu Ms
Specificity	The antibody detects endogenous levels of FOXO1/3/4-pan only when phosphorylated at threonine 24/32.
Immunogen Type	Peptide-KLH
Immunogen Description	Peptide sequence around phosphorylation site of threonine 24/32(S-C-T(p)-W-P) derived from Human FOXO1/3/4-pan .
Target Name	FOXO1/3/4-pan
Modification	Phospho
Other Names	FKHR; FOXO1; FKHR2; AFX; MLLT7
Accession No.	Swiss-Prot#: Q12778/O43524/P98177; NCBI Gene#: 2308/4303; NCBI Protein#: NP_002006.2.
SDS-PAGE MW	78kd
Concentration	1.0mg/ml
Formulation	Rabbit IgG in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Storage	Store at -20°C/1 year

Application Details

Western blotting: 1:500~1:1000

Images



Western blot analysis of extracts from 293 cells treated with Serum using FOXO1/3/4-pan (Phospho-Thr24/32) Antibody #11660.The lane on the right is treated with the antigen-specific peptide.

Background

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 syngernistically 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 to activate the expression of genes such as IGFBP1, G6PC and PPCK1. Important regulator of cell death acting downstream of CDK1, PKB/AKT1 and SKT4/MST1. Promotes neural cell death. Mediates insulin action on adipose. 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.

Robert J. Southgate, J. Biol. Chem., Jul 2007; 282: 21176 - 21186.
Susumu Kodama, Mol. Cell. Biol., Sep 2004; 24: 7931 - 7940.
Dragan Marinkovic, J. Clin. Invest., Aug 2007; 117: 2133 - 2144.
Marie-Liesse Asselin-Labat, Blood, Jul 2004; 104: 215 - 223.