



[Go to Product page](#)

Datasheet for ABIN6256521

anti-FOXO1/3/4-pan antibody (pThr24, pThr32)

3 Images

Overview

Quantity:	100 µL
Target:	FOXO1/3/4-pan (FOXO1/3/4)
Binding Specificity:	pThr24, pThr32
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This FOXO1/3/4-pan antibody is un-conjugated
Application:	Immunohistochemistry (IHC), ELISA, Western Blotting (WB)

Product Details

Immunogen:	A synthesized peptide derived from human FOXO1/3/4-pan around the phosphorylation site of Threonine 24/32
Isotype:	IgG
Specificity:	Phospho-FOXO1/3/4-pan (Thr24/32) Antibody detects endogenous levels of FOXO1/3/4-pan only when phosphorylated at Threonine 24/32
Cross-Reactivity:	Human, Mouse (Murine), Rat (Rattus)
Purification:	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho- and non-phospho-peptide affinity columns.

Target Details

Target:	FOXO1/3/4-pan (FOXO1/3/4)
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Target Details

Alternative Name: FOXO1/3/4-pan ([FOXO1/3/4 Products](#))

Background: Description: 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 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 STK4/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 (By similarity).

Gene: FOXO1

Molecular Weight: 78kDa

Gene ID: 2308

UniProt: [Q12778](#), [P98177](#)

Application Details

Application Notes: WB 1:500-1:2000 IHC 1:50-1:200

Restrictions: For Research Use only

Handling

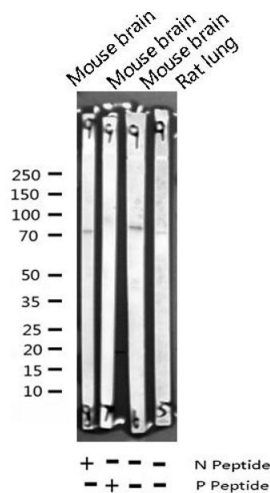
Format: Liquid

Concentration: 1 mg/mL

Handling

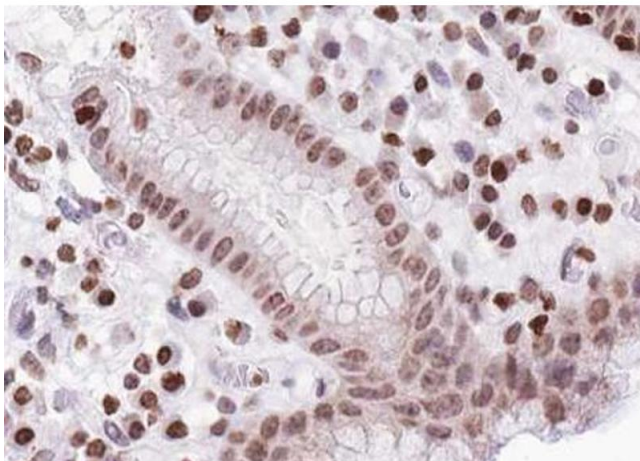
Buffer:	Rabbit IgG in phosphate buffered saline , pH 7.4, 150 mM NaCl, 0.02 % sodium azide and 50 % glycerol.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Store at -20 °C.Stable for 12 months from date of receipt
Expiry Date:	12 months

Images



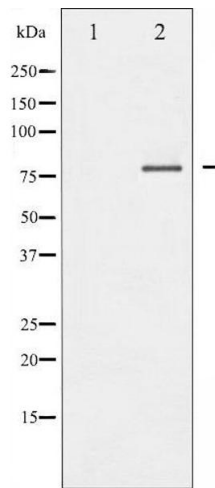
Western Blotting

Image 1. Western blot analysis of Phospho-FOXO1/3/4-pan (Thr24/32) expression in various lysates



Immunohistochemistry

Image 2. ABIN6267628 at 1/100 staining human Stomach 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°C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



Western Blotting

Image 3. Western blot analysis of FOXO1/3/4-pan phosphorylation expression in Serum treated 293 whole cell lysates, The lane on the left is treated with the antigen-specific peptide.