

Product datasheet

Anti-FOXO4 (phospho S193) antibody ab2560

1 Image

Overview

Product name	Anti-FOXO4 (phospho S193) antibody
Description	Rabbit polyclonal to FOXO4 (phospho S193)
Host species	Rabbit
Specificity	This antibody recognizes the phosphorylated Ser193 of AFX. It does not react with non-phosphorylated AFX.
Tested applications	Suitable for: WB, ICC/IF
Species reactivity	Reacts with: Hamster, Human
Immunogen	Available on request.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
Storage buffer	PBS pH7.2 with 50% glycerol, 1% BSA and 0.02% sodium azide
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab2560** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
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WB

ICC/IF

Application notes	ICC/IF: Use at a concentration of 5 µg/ml. WB: Use at a concentration of 1 - 2 µg/ml. Detects a band of approximately 62 kDa (predicted
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molecular weight: 54 kDa).

Not yet tested in other applications.

Optimal dilutions/concentrations should be determined by the end user.

Target

Function

Transcription factor involved in the regulation of the insulin signaling pathway. Binds to insulin-response elements (IREs) and can activate transcription of IGF1. Down-regulates expression of HIF1A and suppresses hypoxia-induced transcriptional activation of HIF1A-modulated genes. Also involved in negative regulation of the cell cycle.

Tissue specificity

Heart, brain, placenta, lung, liver, skeletal muscle, kidney and pancreas. Isoform zeta is most abundant in the liver, kidney, and pancreas.

Involvement in disease

Note=A chromosomal aberration involving FOXO4 is found in acute leukemias. Translocation t(X;11)(q13;q23) with MLL/HRX. The result is a rogue activator protein.

Sequence similarities

Contains 1 fork-head DNA-binding domain.

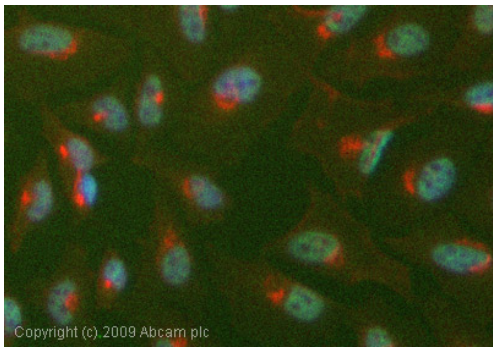
Post-translational modifications

Acetylation by 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. 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.

Cellular localization

Cytoplasm. Nucleus. When phosphorylated, translocated from nucleus to cytoplasm. Dephosphorylation triggers nuclear translocation. Monoubiquitination increases nuclear localization. When deubiquitinated, translocated from nucleus to cytoplasm.

Images



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Immunocytochemistry/ Immunofluorescence -
FOXO4 (phospho S193) antibody (ab2560)

ICC/IF image of ab2560 stained HeLa cells. The cells were 4% formaldehyde fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab2560, 5µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.

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