


Product datasheet

Anti-FOXO4 (phospho T451) antibody ab79188

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Overview

<b>Product name</b>	Anti-FOXO4 (phospho T451) antibody
<b>Description</b>	Rabbit polyclonal to FOXO4 (phospho T451)
<b>Host species</b>	Rabbit
<b>Specificity</b>	ab79188 detects endogenous levels of FOXO4 only when phosphorylated at threonine 451 (Human: Thr451; Mouse: Thr452).
<b>Tested applications</b>	<b>Suitable for:</b> WB, ELISA
<b>Species reactivity</b>	<b>Reacts with:</b> Human <b>Predicted to work with:</b> Mouse 
<b>Immunogen</b>	Synthetic phosphopeptide derived from human FOXO4 around the phosphorylation site of threonine 451 (L-G-T <sup>P</sup> -P-V).
<b>Positive control</b>	Extracts from HUVEC cells treated with EGF (200ng/ml, 5mins).

Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
<b>Storage buffer</b>	Preservative: 0.02% Sodium Azide Constituents: 50% Glycerol, PBS (without Mg <sup>2+</sup> and Ca <sup>2+</sup> ), 150mM Sodium chloride, pH 7.4
<b>Purity</b>	Immunogen affinity purified
<b>Purification notes</b>	ab79188 was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific phosphopeptide. The antibody against non-phosphopeptide was removed by chromatography using non-phosphopeptide corresponding to the phosphorylation site.
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab79188** in the following tested applications.

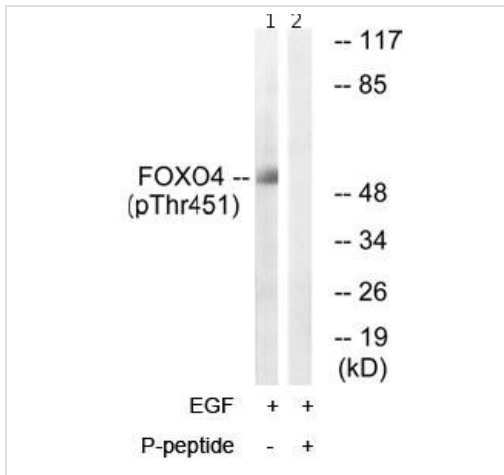
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/500 - 1/1000. Predicted molecular weight: 54 kDa.
ELISA		1/10000.

## Target

<b>Function</b>	Transcription factor involved in the regulation of the insulin signaling pathway. Binds to insulin-response elements (IREs) and can activate transcription of IGFBP1. Down-regulates expression of HIF1A and suppresses hypoxia-induced transcriptional activation of HIF1A-modulated genes. Also involved in negative regulation of the cell cycle.
<b>Tissue specificity</b>	Heart, brain, placenta, lung, liver, skeletal muscle, kidney and pancreas. Isoform zeta is most abundant in the liver, kidney, and pancreas.
<b>Involvement in disease</b>	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.
<b>Sequence similarities</b>	Contains 1 fork-head DNA-binding domain.
<b>Post-translational modifications</b>	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.
<b>Cellular localization</b>	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



Western blot - Anti-FOXO4 (phospho T451) antibody (ab79188)

**All lanes :** Anti-FOXO4 (phospho T451) antibody (ab79188) at 1/500 dilution

**Lane 1 :** Extracts from HUVEC cells treated with EGF (200ng/ml, 5mins)

**Lane 2 :** Extracts from HUVEC cells treated with EGF (200ng/ml, 5mins) with immunising phosphopeptide at 10 µg

Lysates/proteins at 30 µg per lane.

**Predicted band size:** 54 kDa

**Observed band size:** 54 kDa

**Please note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE"

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