abcam

Product datasheet

Anti-FOXO3A (phospho S253) antibody ab31109

1 Abreviews 5 References 4 图像

概述

产品名称	Anti-FOXO3A (phospho S253)抗体
描述	兔多克隆抗体to FOXO3A (phospho S253)
宿主	Rabbit
经测试应用	**适用于:** WB, ICC/IF, IHC-P, IP
种属反应性	**与反应:** Mouse, Rat **预测可用于:** Human, Pig, Zebrafish
免疫原	Synthetic peptide conjugated to KLH derived from within residues 200 - 300 of Human FOXO3A.参阅Abcam的专有抗源政策(Peptide available as ab27885.)
阳性对照	This antibody gave a positive signal in PC12 (Rat adrenal pheochromocytoma cell line) Cytoplasmic Lysate.

性能

形式	Liquid
存放说明	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
存储溶液	Preservative: 0.02% Sodium Azide Constituents: 1% BSA, PBS, pH 7.4
纯度	Immunogen affinity purified
克隆	多克隆
同种型	IgG

应用

Our Abpromise guarantee covers the use of **ab31109** in the following tested applications.

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

应用	Ab评论	说明
WB		

应用	Ab评论	说明
ICC/IF		
IHC-P	★★★★☆	
IP		

应用说明

ICC/IF: Use at a concentration of 1 µg/ml.
IHC-P: Use at an assay dependent dilution (PMID 20140201).
WB: Use at a concentration of 1 µg/ml. Detects a band of approximately 63 kDa (predicted molecular weight: 70 kDa). Can be blocked with FOXO3A (phospho S253) peptide (ab27885).

Not yet tested in other applications.
Optimal dilutions/concentrations should be determined by the end user.

靶标

功能

Transcriptional activator which triggers apoptosis in the absence of survival factors, including neuronal cell death upon oxidative stress. Recognizes and binds to the DNA sequence 5'-[AG]TAAA[TC]A-3'.

组织特异性

Ubiquitous.

疾病相关

Note=A chromosomal aberration involving FOXO3 is found in secondary acute leukemias. Translocation t(6;11)(q21;q23) with MLL/HRX.

序列相似性

Contains 1 fork-head DNA-binding domain.

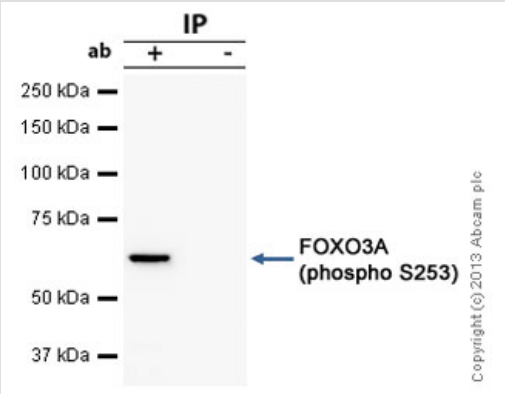
翻译后修饰

In the presence of survival factors such as IGF-1, phosphorylated on Thr-32 and Ser-253 by AKT1/PKB. This phosphorylated form then interacts with 14-3-3 proteins and is retained in the cytoplasm. Survival factor withdrawal induces dephosphorylation and promotes translocation to the nucleus where the dephosphorylated protein induces transcription of target genes and triggers apoptosis. Although AKT1/PKB doesn't appear to phosphorylate Ser-315 directly, it may activate other kinases that trigger phosphorylation at this residue. Phosphorylated by STK4 on Ser-209 upon oxidative stress, which leads to dissociation from YWHAB/14-3-3-beta and nuclear translocation. Phosphorylated by PIM1.

细胞定位

Cytoplasm > cytosol. Nucleus. Translocates to the nucleus upon oxidative stress and in the absence of survival factors.

图片



Immunoprecipitation - Anti-FOXO3A (phospho S253) antibody (ab31109)

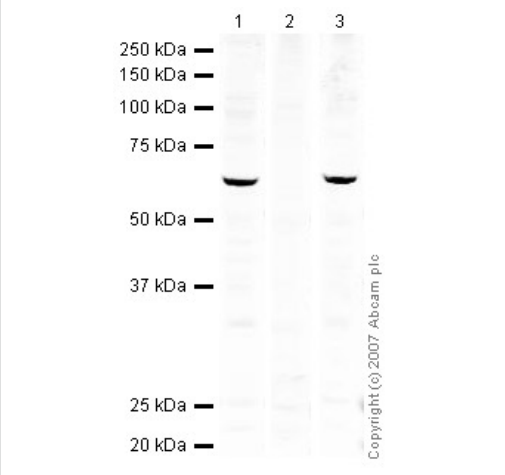
FOXO3A was immunoprecipitated using 0.5mg PC12 whole cell extract, 5µg of Rabbit polyclonal to FOXO3A and 50µl of protein G magnetic beads (+). No antibody was added to the control (-).

The antibody was incubated under agitation with Protein G beads for 10min, PC12 whole cell extract lysate diluted in RIPA buffer was added to each sample and incubated for a further 10min under agitation.

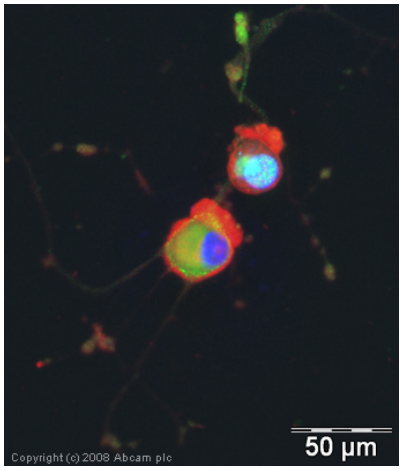
Proteins were eluted by addition of 40µl SDS loading buffer and incubated for 10min at 70°C; 10µl of each sample was separated on a SDS PAGE gel, transferred to a nitrocellulose membrane, blocked with 5% BSA and probed with ab31109.

Secondary: Mouse monoclonal [SB62a] Secondary Antibody to Rabbit IgG light chain (HRP) (ab99697).

Band: 63kDa; FOXO3A

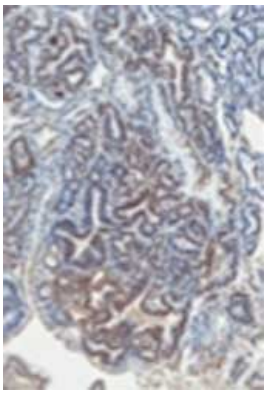


Western blot - Anti-FOXO3A (phospho S253) antibody (ab31109)



Immunocytochemistry/ Immunofluorescence - Anti-FOXO3A (phospho S253) antibody (ab31109)

ICC/IF image of ab31109 stained PC12 cells. The cells were 4% PFA fixed (10 min), permabilised in 0.1% PBS-Tween (20 min) and incubated with the antibody (ab31109, 1µg/ml) for 1h at room temperature. 1%BSA / 10% normal goat serum / 0.3M glycine was used to block non-specific protein-protein interactions. 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). DAPI was used to stain the cell nuclei (blue).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-FOXO3A (phospho S253) antibody (ab31109)

Image from Guillen-Ahlers H et al, PLoS One. 2010 Feb 5;5(2):e9070, Fig 6.

ab31109 staining FOXO3A in adenomas from $Apc^{Mn/+}$ mice (30 weeks old) by Immunohistochemistry (paraffin embedded sections). Intestines were opened longitudinally, cleaned, Swiss-rolled, fixed with periodate-lysine-paraformaldehyde, and embedded in paraffin.

Phosphorylated FOXO3A was identified utilizing ab31109, followed by HRP-conjugated goat-anti-rabbit IgG. All stains were then developed in 3, 3′-diaminobenzidine and a haematoxylin counterstain was applied.

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit http://www.abcam.cn/abpromise or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors