


Product datasheet

Anti-FOXO1A antibody ab111029

2 Images

Overview

<b>Product name</b>	Anti-FOXO1A antibody
<b>Description</b>	Goat polyclonal to FOXO1A
<b>Host species</b>	Goat
<b>Tested applications</b>	<b>Suitable for:</b> IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Human <b>Predicted to work with:</b> Mouse, Rat, Cow, Dog, Pig 
<b>Immunogen</b>	Synthetic peptide conjugated to KLH, corresponding to C terminal amino acids of Human FOXO1A.
<b>Positive control</b>	Human adrenal and Human brain cortex tissues.

Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
<b>Storage buffer</b>	pH: 7.30 Preservative: 0.02% Sodium azide Constituents: 0.5% BSA, 99% Tris buffered saline
<b>Purity</b>	Protein G purified
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab111029** 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
IHC-P		Use a concentration of 3.75 µg/ml. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

## Target

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### Function

Transcription factor which acts as a regulator of cell responses to oxidative stress. In the presence of KIRT1, mediates down-regulation of cyclin D1 and up-regulation of CDKN1B levels which are required for cell transition from proliferative growth to quiescence.

### Tissue specificity

Ubiquitous.

### Involvement in disease

Defects in FOXO1 are a cause of rhabdomyosarcoma type 2 (RMS2) [MIM:268220]. It is a form of rhabdomyosarcoma, a highly malignant tumor of striated muscle derived from primitive mesenchymal cells and exhibiting differentiation along rhabdomyoblastic lines.

Rhabdomyosarcoma is one of the most frequently occurring soft tissue sarcomas and the most common in children. It occurs in four forms: alveolar, pleomorphic, embryonal and botryoidal rhabdomyosarcomas. Note=Chromosomal aberrations involving FOXO1 are found in rhabdomyosarcoma. Translocation (2;13)(q35;q14) with PAX3; translocation t(1;13)(p36;q14) with PAX7. The resulting protein is a transcriptional activator.

### Sequence similarities

Contains 1 fork-head DNA-binding domain.

### Post-translational modifications

Phosphorylated by AKT1; insulin-induced (By similarity). IGF1 rapidly induces phosphorylation of Ser-256, Thr-24, and Ser-319. Phosphorylation of Ser-256 decreases DNA-binding activity and promotes the phosphorylation of Thr-24, and Ser-319, permitting phosphorylation of Ser-322 and Ser-325, probably by CK1, leading to nuclear exclusion and loss of function.

Phosphorylation of Ser-329 is independent of IGF1 and leads to reduced function.

Phosphorylated upon DNA damage, probably by ATM or ATR.

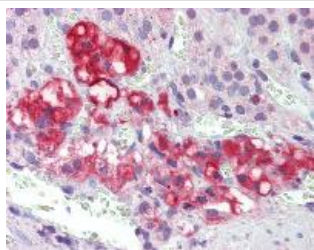
### Cellular localization

Cytoplasm. Nucleus. Shuttles between cytoplasm and nucleus.

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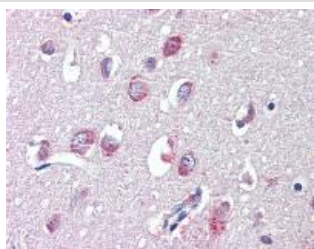
## Images

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ab111029, at 3.75µg/ml, staining FOXO1A in Formalin-fixed, Paraffin-embedded Human Adrenal tissue by Immunohistochemistry.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - FOXO1A antibody (ab111029)



ab111029, at 3.75µg/ml, staining FOXO1A in Formalin-fixed, Paraffin-embedded Human Brain cortex tissue by Immunohistochemistry.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - FOXO1A antibody (ab111029)

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