

## Product datasheet

# Anti-FOXO1A antibody [EP927Y] ab52857

Recombinant RabMAb

★★★★★ 8 Abreviews 63 References 5 Images

### Overview

<b>Product name</b>	Anti-FOXO1A antibody [EP927Y]
<b>Description</b>	Rabbit monoclonal [EP927Y] to FOXO1A
<b>Host species</b>	Rabbit
<b>Specificity</b>	ab52857 recognizes both phosphorylated and unphosphorylated FOXO1A. The immunogen used for this product shares 85% homology with FOXO3. Cross-reactivity with this protein has not been confirmed experimentally.
<b>Tested applications</b>	<b>Suitable for:</b> Flow Cyt (Intra), IHC-P, ICC/IF, WB <b>Unsuitable for:</b> IP
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Human <b>Predicted to work with:</b> Rat 
<b>Immunogen</b>	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
<b>Positive control</b>	WB: NIH/3T3 cell lysate. IHC-P: Human bladder carcinoma tissue. ICC/IF: HeLa cells. Flow Cyt (intra): HeLa cells.
<b>General notes</b>	This product is a recombinant monoclonal antibody, which offers several advantages including: <ul style="list-style-type: none"> <li>- High batch-to-batch consistency and reproducibility</li> <li>- Improved sensitivity and specificity</li> <li>- Long-term security of supply</li> <li>- Animal-free production</li> </ul> For more information <a href="#">see here</a> . Our RabMAb <sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a> .

### 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>	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 9% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA, 50% Tissue culture supernatant

<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EP927Y
<b>Isotype</b>	IgG

## Applications

**The Abpromise guarantee** Our [Abpromise guarantee](#) covers the use of ab52857 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
Flow Cyt (Intra)		1/90.
IHC-P	★★★★★ (3)	1/250 - 1/500. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
ICC/IF		1/100 - 1/250.
WB	★★★★★ (5)	1/1000 - 1/10000. Detects a band of approximately 80 kDa (predicted molecular weight: 70 kDa).

**Application notes** Is unsuitable for IP.

## Target

**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.

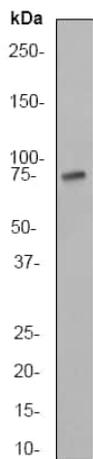
**Tissue specificity** Ubiquitous.

**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.



Western blot - Anti-FOXO1A antibody [EP927Y] (ab52857)

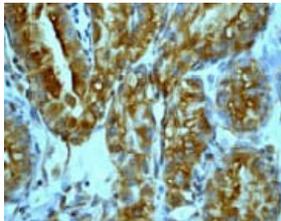
Anti-FOXO1A antibody [EP927Y] (ab52857) at 1/1000 dilution + NIH/3T3 cell lysate at 10 µg

**Secondary**

Goat anti-rabbit HRP at 1/2000 dilution

**Predicted band size:** 70 kDa

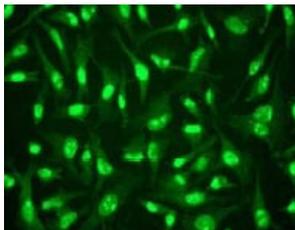
**Observed band size:** 70 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-FOXO1A antibody [EP927Y] (ab52857)

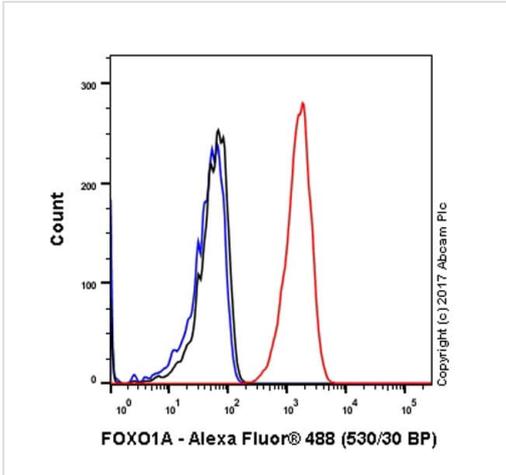
ab52857 at 1/250 dilution staining FOXO1A in human bladder carcinoma by Immunohistochemistry, Paraffin embedded tissue.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-FOXO1A antibody [EP927Y] (ab52857)

ab52857 at 1/100 dilution staining FOXO1A in HeLa cells by Immunocytochemistry.



Intracellular Flow Cytometry analysis of HeLa (human cervix adenocarcinoma) cells labeling FOXO1A (red) with ab52857 at a 1/90 dilution. Cells were fixed with 4% paraformaldehyde and permeabilized with 90% methanol. A goat anti-rabbit IgG (Alexa Fluor® 488) (ab150077) was used as the secondary antibody at a 1/2000 dilution. Black - Rabbit monoclonal IgG (ab172730). Blue (unlabeled control) - Cells without incubation with the primary and secondary antibodies.

Flow Cytometry (Intracellular) - Anti-FOXO1A antibody [EP927Y] (ab52857)

Why choose a recombinant antibody?

 <p><b>Research with confidence</b> Consistent and reproducible results</p>	 <p><b>Long-term and scalable supply</b> Recombinant technology</p>
 <p><b>Success from the first experiment</b> Confirmed specificity</p>	 <p><b>Ethical standards compliant</b> Animal-free production</p>

Anti-FOXO1A antibody [EP927Y] (ab52857)

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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