

## FoxO1/3/4 Rabbit pAb

CatalogNo: YT1760

### Key Features

#### Host Species

- Rabbit

#### Reactivity

- Human, Mouse, Rat

#### Applications

- WB, IHC, IF, ELISA

#### MW

- 78kD (Observed)

#### Isotype

- IgG

### Storage

**Storage\*** -15°C to -25°C/1 year (Do not lower than -25°C)

**Formulation** Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

### Recommended Dilution Ratios

**WB 1:500-1:2000**

**IHC 1:100-1:300**

**ELISA 1:5000**

**IF 1:50-200**

### Basic Information

**Clonality** Polyclonal

### Immunogen Information

**Immunogen** The antiserum was produced against synthesized peptide derived from human FOXO1/3/4. AA range:15-64

**Specificity** FoxO1/3/4 Polyclonal Antibody detects endogenous levels of FoxO1/3/4 protein.

### Target Information

**Gene name** FOXO1/3/4

**Protein Name** Forkhead box protein O1/3/4

Organism	Gene ID	UniProt ID
Human	<a href="#">2308</a> ; <a href="#">4303</a> ;	<a href="#">Q12778</a> ; <a href="#">O43524</a> ; <a href="#">P98177</a> ;
Mouse	<a href="#">56458</a> ; <a href="#">56484</a> ; <a href="#">54601</a> ;	
Rat	<a href="#">84482</a> ;	<a href="#">G3V7R4</a> ;

**Cellular Localization**

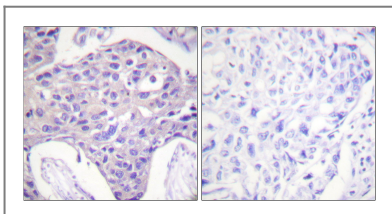
Cytoplasm . Nucleus . Shuttles between the cytoplasm and nucleus. Largely nuclear in unstimulated cells (PubMed:11311120, PubMed:12228231, PubMed:19221179, PubMed:21245099, PubMed:20543840, PubMed:25009184). In osteoblasts, colocalizes with ATF4 and RUNX2 in the nucleus (By similarity). Serum deprivation increases localization to the nucleus, leading to activate expression of SOX9 and subsequent chondrogenesis (By similarity). Insulin-induced phosphorylation at Ser-256 by PKB/AKT1 leads, via stimulation of Thr-24 phosphorylation, to binding of 14-3-3 proteins and nuclear export to the cytoplasm where it is degraded by the ubiquitin-proteosomal pathway (PubMed:11237865, PubMed:12228231). Phosphorylation at Ser-249 by CDK1 disrupts binding of 14-3-3 proteins and promotes nuclear accumulation (PubMed:18356527). Phosphorylation by NLK results in nuclear export (By similarity). Translocates to the nucleus upon oxidative stress-induced phosphorylation at Ser-212 by STK4/MST1 (PubMed:19221179, PubMed:21245099). SGK1-mediated phosphorylation also results in nuclear translocation (By similarity). Retained in the nucleus under stress stimuli including oxidative stress, nutrient deprivation or nitric oxide (By similarity). Retained in the nucleus on methylation (By similarity). PPIA/CYPA stimulates its nuclear accumulation (PubMed:31063815). Deacetylation by SIRT6, promotes its translocation into the cytoplasm (PubMed:25009184). .

**Tissue specificity** Ubiquitous.

**Function**

Disease:Chromosomal aberrations involving FOXO1 are a cause of rhabdomyosarcoma 2 (RMS2) [MIM:268220]; also known as alveolar rhabdomyosarcoma. Translocation (2;13)(q35;q14) with PAX3; translocation t(1;13)(p36;q14) with PAX7. The resulting protein is a transcriptional activator.,Function:Transcription factor.,PTM: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.,similarity:Contains 1 fork-head DNA-binding domain.,subcellular location:Shuttles between cytoplasm and nucleus.,subunit:Interacts with LRPPRC.,tissue specificity:Ubiquitous.,

**Validation Data**



Immunohistochemistry analysis of paraffin-embedded human breast carcinoma tissue, using FOXO1/3/4-pan Antibody. The picture on the right is blocked with the synthesized peptide.

## | Contact information

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Please scan the QR code  
to access additional  
product information:  
**FoxO1/3/4 Rabbit  
pAb**

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