

FoxO1 (Phospho Ser256) Rabbit pAb (AR20068)

Key Features

Host Species:	Rabbit
Reactivity:	Human,Mouse,Rat,Drosophila
Applications:	WB,IHC,IF,ELISA
Isotype:	IgG
MW:	70kDa (Calculated) 70kDa (Observed)

Recommended Dilution Ratios

WB:	1:500-2000
IHC:	1:100-300
IF:	1:200-1000
ELISA:	1: 20000
Storage	-15°C to -25°C/1 year (Do not lower than -25°C)

Basic Information

Clonality	Polyclonal
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Immunogen Information

Specificity	Phospho-FoxO1 (S256) Polyclonal Antibody detects endogenous levels of FoxO1 protein only when phosphorylated at S256. The name of modified sites may be influenced by many factors, such as species (the modified site was not originally found in human samples) and the change of protein sequence (the previous protein sequence is incomplete, and the protein sequence may be prolonged with the development of protein sequencing technology). When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports. The antibody binds to the following modification sequence (lowercase letters are modification sites):AAsMD
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Target Information

Gene name	FOXO1
Protein Name	Forkhead box protein O1

Organism	Gene ID	UniProt ID
Human	2308	Q12778
Mouse	56458	Q9R1E0
Rat	84482	G3V7R4

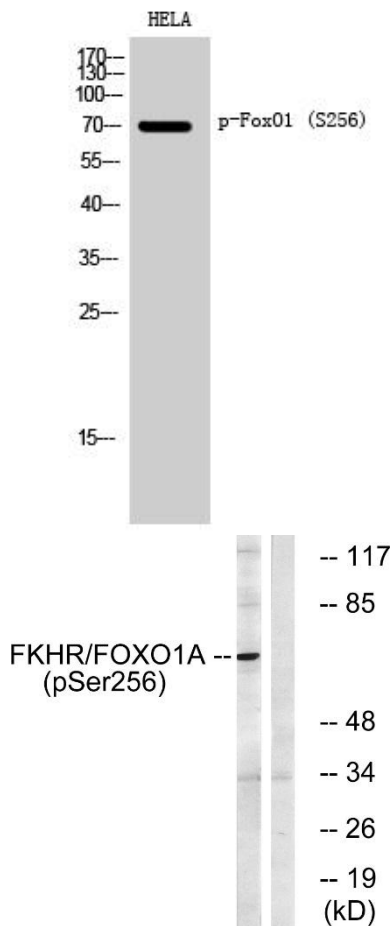
Cellular Localization

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

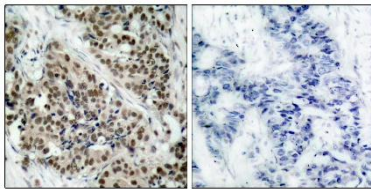
Ubiquitous.

Validation Data

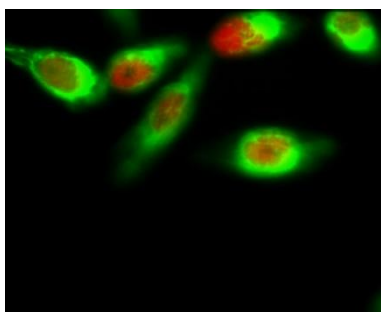


Western Blot analysis of HELA cells using Phospho-FoxO1 (Ser256) Polyclonal Antibody diluted at 1:1000.

Western blot analysis of lysates from HeLa cells treated with EGF+Serum, using FKHR (Phospho-Ser256) Antibody. The lane on the right is blocked with the phospho peptide.



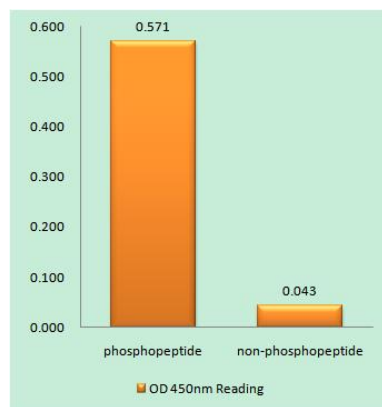
Immunohistochemistry analysis of paraffin-embedded human breast carcinoma, using FKHR (Phospho-Ser256) Antibody. The picture on the right is blocked with the phospho peptide.



Immunofluorescence analysis of HeLa cell.

1. FoxO1 (phospho Ser256) Polyclonal Antibody(red) was diluted at 1:200(4 °C overnight). Active Caspase-3 Monoclonal Antibody (green) was diluted at 1:200(4°C overnight).
2. Goat Anti Rabbit Alexa Fluor 594 was diluted at 1:1000(room temperature, 50min). Goat Anti Mouse Alexa Fluor 488 was diluted at 1:1000(room temperature, 50min).

Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using FKHR (Phospho-Ser256) Antibody.



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