

Anti-Phospho-FoxO3a (S253) Rabbit Monoclonal Antibody
Catalog # ABO13177**Specification****Anti-Phospho-FoxO3a (S253) Rabbit Monoclonal Antibody - Product Information**

Application	WB, IHC
Primary Accession	O43524
Host	Rabbit
Isotype	Rabbit IgG
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Format	Liquid

Description

Anti-Phospho-FoxO3a (S253) Rabbit Monoclonal Antibody . Tested in WB, IHC applications. This antibody reacts with Human, Mouse, Rat.

Anti-Phospho-FoxO3a (S253) Rabbit Monoclonal Antibody - Additional Information

Gene ID 2309

Other Names

Forkhead box protein O3, AF6q21 protein, Forkhead in rhabdomyosarcoma-like 1, FOXO3 ([HGNC:3821](http://www.genenames.org/cgi-bin/gene_symbol_report?hgnc_id=3821))

Calculated MW

71277 MW KDa

Application Details

WB 1:500-1:2000
IHC 1:50-1:200

Subcellular Localization

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

Tissue Specificity

Ubiquitous..

Contents

Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.

Immunogen

A synthesized peptide derived from human FoxO3a

Purification

Affinity-chromatography

Storage

Store at -20°C for one year. For short term

storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.

Anti-Phospho-FoxO3a (S253) Rabbit Monoclonal Antibody - Protein Information

Name FOXO3 ([HGNC:3821](#))

Function

Transcriptional activator that recognizes and binds to the DNA sequence 5'-[AG]TAAA[TC]A-3' and regulates different processes, such as apoptosis and autophagy (PubMed: [10102273](http://www.uniprot.org/citations/10102273), PubMed: [16751106](http://www.uniprot.org/citations/16751106), PubMed: [21329882](http://www.uniprot.org/citations/21329882), PubMed: [30513302](http://www.uniprot.org/citations/30513302)). Acts as a positive regulator of autophagy in skeletal muscle: in starved cells, enters the nucleus following dephosphorylation and binds the promoters of autophagy genes, such as GABARAP1L, MAP1LC3B and ATG12, thereby activating their expression, resulting in proteolysis of skeletal muscle proteins (By similarity). Triggers apoptosis in the absence of survival factors, including neuronal cell death upon oxidative stress (PubMed: [10102273](http://www.uniprot.org/citations/10102273), PubMed: [16751106](http://www.uniprot.org/citations/16751106), PubMed: [21329882](http://www.uniprot.org/citations/21329882)). Participates in post-transcriptional regulation of MYC: following phosphorylation by MAPKAPK5, promotes induction of miR-34b and miR-34c expression, 2 post-transcriptional regulators of MYC that bind to the 3'UTR of MYC transcript and prevent its translation (PubMed: [21329882](http://www.uniprot.org/citations/21329882)). In response to metabolic stress, translocates into the mitochondria where it promotes mtDNA transcription (PubMed: [23283301](http://www.uniprot.org/citations/23283301)). In response to metabolic stress, translocates into the mitochondria where it promotes mtDNA transcription. Also acts as a key regulator of chondrogenic commitment of skeletal progenitor cells in response to lipid availability: when lipids levels are low, translocates to the nucleus and promotes expression of SOX9, which induces chondrogenic commitment and suppresses fatty acid oxidation (By similarity). Also acts as a key regulator of regulatory T-cells (Treg) differentiation by activating expression of FOXP3 (PubMed: [30513302](http://www.uniprot.org/citations/30513302)).

Cellular Location

Cytoplasm, cytosol. Nucleus Mitochondrion matrix. Mitochondrion outer membrane; Peripheral membrane protein; Cytoplasmic side. Note=Retention in the cytoplasm contributes to its inactivation (PubMed:10102273, PubMed:15084260, PubMed:16751106). Translocates to the nucleus upon oxidative stress and in the absence of survival factors (PubMed:10102273, PubMed:16751106) Translocates from the cytosol to the nucleus following dephosphorylation in response to autophagy-inducing stimuli (By similarity). Translocates in a AMPK-dependent manner into the mitochondrion in response to metabolic stress (PubMed:23283301, PubMed:29445193). Serum deprivation increases localization to the nucleus, leading to activate expression of SOX9 and subsequent chondrogenesis (By similarity). {ECO:0000250|UniProtKB:Q9WVH4, ECO:0000269|PubMed:10102273, ECO:0000269|PubMed:15084260, ECO:0000269|PubMed:16751106, ECO:0000269|PubMed:23283301, ECO:0000269|PubMed:29445193}

Tissue Location

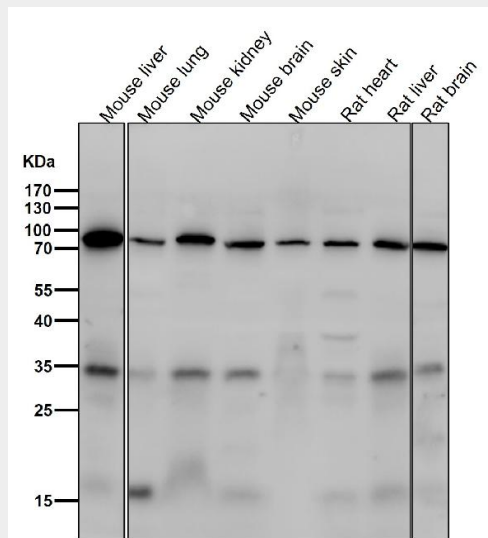
Ubiquitous..

Anti-Phospho-FoxO3a (S253) Rabbit Monoclonal Antibody - Protocols

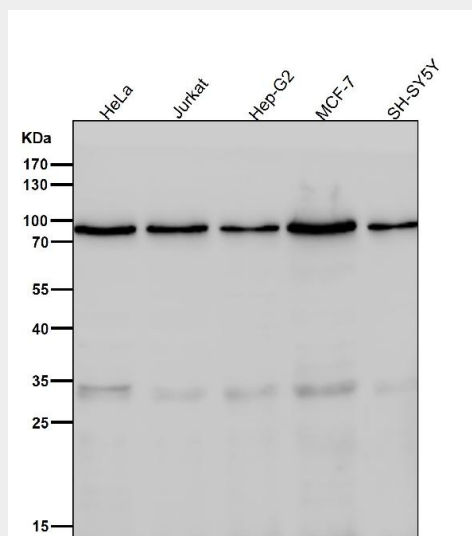
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

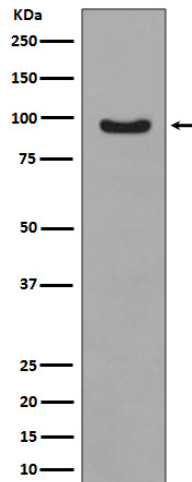
Anti-Phospho-FoxO3a (S253) Rabbit Monoclonal Antibody - Images



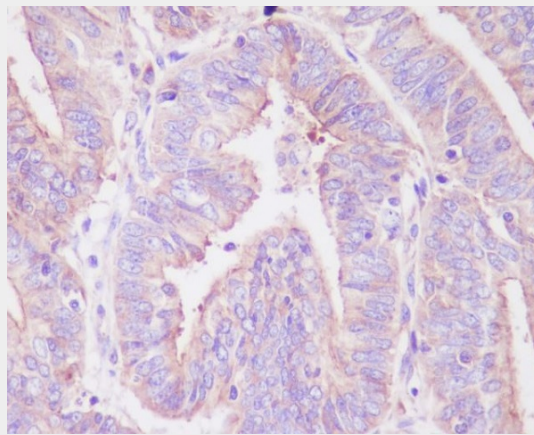
All lanes use the Antibody at 1:1K dilution for 1 hour at room temperature.



All lanes use the Antibody at 1:1K dilution for 1 hour at room temperature.



Western blot analysis of Phospho-FoxO3a (S253) expression in MCF-7 cell lysate treated with IGF.



Immunohistochemical analysis of paraffin-embedded human uterus cancer, using Phospho-FoxO3a (S253) Antibody.