FoxO3a (Phospho Ser253) (PT0061R) PT™ Rabbit mAb

CatalogNo: YM8032 Recombinant

Key Features

Host Species
- Rabbit

Reactivity
- Human,Mouse,Rat

Applications
- WB,IHC,IF,ELISA

MW
- 71kD (Calculated)

97kD (Observed)

Isotype
- IgG, Kappa

Storage

Storage*	-15°C to -25°C/1 year (Do not lower than -25°C)
Formulation	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA

Recommended Dilution Ratios

IHC 1:200-1:1000
WB 1:1000-1:5000
IF 1:200-1:1000
ELISA 1:5000-1:20000

Basic Information

Clonality	Monoclonal
Clone Number	PT0061R

Immunogen Information

Immunogen	The specific immunogen used to produce this antibody is proprietary information.
Specificity	This antibody detects endogenous levels of FoxO3a only when phosphorylated at Ser253.This antibody does not recognize phosphorylated at other sites.

Target Information

Gene name FOXO3

Protein Name Forkhead box protein O3

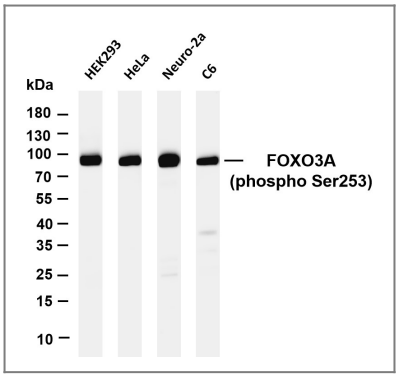
Organism	Gene ID	UniProt ID
Human	2309;	O43524;
Mouse	56484;	Q9WVH4;

Cellular Localization Cytoplasm , cytosol . Nucleus . Mitochondrion matrix . Mitochondrion outer membrane ; Peripheral membrane protein ; Cytoplasmic side . 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) . .

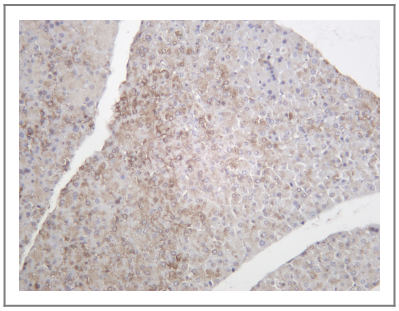
Tissue specificity Ubiquitous.

Function Disease:A chromosomal aberration involving FOXO3 is found in secondary acute leukemias. Translocation t (6;11) (q21;q23) with MLL/HRX. ,Function:Transcriptional activator which triggers apoptosis in the absence of survival factors , including neuronal cell death upon oxidative stress. Recognizes and binds to the DNA sequence 5'-[AG]TAAA[TC]A-3'. ,PTM:In the presence of survival factors such as IGF-1 , phosphorylated on Thr-32 and Ser-253 by AKT1/PKB. This phosphorylated form then interacts with 14-3-3 proteins and is retained in the cytoplasm. Survival factor withdrawal induces dephosphorylation and promotes translocation to the nucleus where the dephosphorylated protein induces transcription of target genes and triggers apoptosis. Although AKT1/PKB doesn't appear to phosphorylate Ser-315 directly , it may activate other kinases that trigger phosphorylation at this residue. Phosphorylated by STK4 on Ser-209 upon oxidative stress , which leads to dissociation from YWHAB/14-3-3-beta and nuclear translocation. ,similarity:Contains 1 fork-head DNA-binding domain. ,subcellular location:Translocates to the nucleus upon oxidative stress and in the absence of survival factors. ,subunit:Interacts with YWHAB/14-3-3-beta and YWHAZ/14-3-3-zeta , which are required for cytosolic sequestration. Upon oxidative stress , interacts with STK4 , which disrupts interaction with YWHAB/14-3-3-beta and leads to nuclear translocation. ,tissue specificity:Ubiquitous. ,

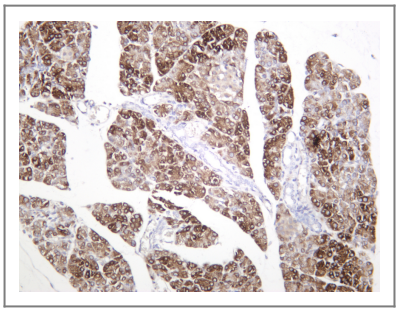
Validation Data



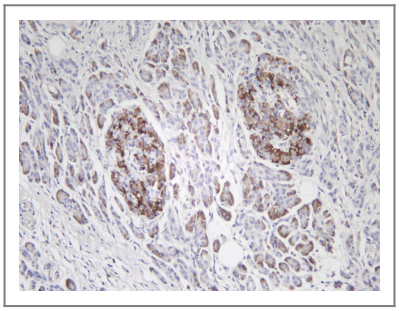
Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-FOXO3A antibody. The HRP-conjugated Goat anti-Rabbit IgG (H + L) antibody was used to detect the antibody. Lane 1:HEK293 Lane 2: Hela Lane 3: Neuro-2a Lane 4: C6 Predicted band size: 71kDa Observed band size: 97kDa



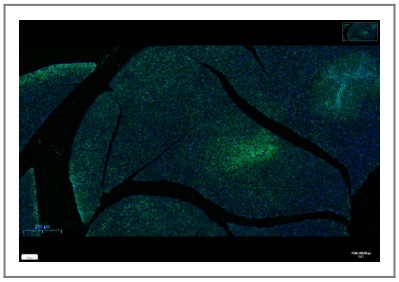
Mouse pancreas was stained with anti-FOXO3A (phospho Ser253) rabbit antibody



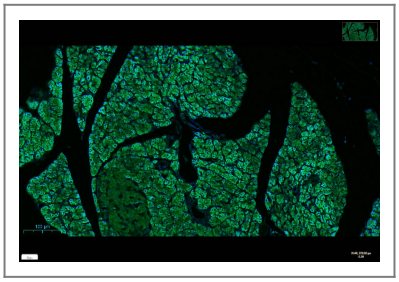
Rat pancreas was stained with anti-FOXO3A (phospho Ser253) rabbit antibody



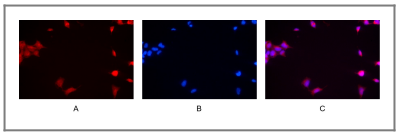
Human pancreas was stained with anti-FOXO3A (phospho Ser253) rabbit antibody



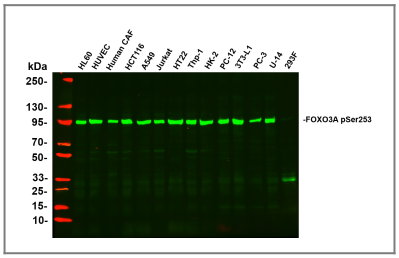
mouse pancreas was stained with anti-FOXO3A (phospho Ser253) rabbit antibody



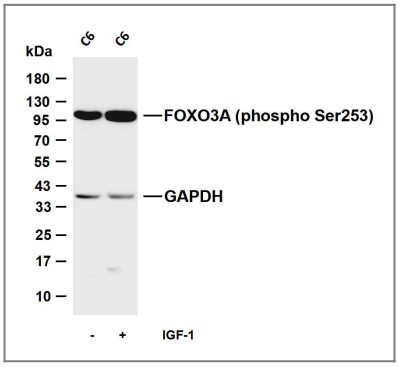
rat pancreas was stained with anti-FOXO3A (phospho Ser253) rabbit antibody



Immunofluorescence analysis of HEK293. Picture A: FOXO3A (phospho Ser253) antibody (red). Picture B: DAPI (blue). Picture C: Merge of A+B



Various whole cell lysates were separated by 4-20% SDS-PAGE, and the primary antibody was used at 4℃ over night with a 1:2500 dilution . The Dilight 800-conjugated Goat anti-Rabbit antibody (Cat:RS23920) was used to detect the antibody. Lane1: HL60 - Human promyelocytic leukemia cell Lane2: HUVEC - Human umbilical vein endothelial cell Lane3: Human CAF - Human cancer-associated fibroblast Lane4: HCT116 - Human colorectal carcinoma Lane5: A549 - Human lung carcinoma Lane6: Jurkat - Human T lymphocyte leukemia Lane7: HT22 - Mouse hippocampal neuronal Lane8: Thp-1 - Human monocytic leukemia Lane9: HK-2 - Human proximal tubular epithelial Lane10: PC-12 - Rat adrenal pheochromocytoma Lane11: 3T3-L1 - Mouse embryonic fibroblast cells Lane12: PC-3 - Human prostate adenocarcinoma Lane13: U-14 - Mouse cervical carcinoma Lane14: 293F - HEK293 derivative, adapted for suspension culture Predicted band size: 71kDa Observed band size: 97kDa



Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-FOXO3A (phospho Ser253) (PT0061R) antibody. The HRP-conjugated Goat anti-Rabbit IgG (H + L) antibody was used to detect the antibody. Lane 1: C6 Lane 2: C6 serum starvation for 24 hours followed by treatment with IGF-1 (100ng/mL) for 20 minutes Predicted band size: 71kDa Observed band size: 97kDa

Contact information

Orders:	order@immunoway.com
Support:	tech@immunoway.com
Telephone:	877-594-3616 (Toll Free), 408-747-0185
Website:	http://www.immunoway.com
Address:	2200 Ringwood Ave San Jose, CA 95131 USA

Please scan the QR code to access additional product information: **FoxO3a (Phospho Ser253) (PT0061R) PT™ Rabbit mAb**

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