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Phospho-AFX-S197 Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AE1004b

Specification

Phospho-AFX-S197 Antibody - Product Information

Application	**WB, IHC, IF**
Primary Accession	P98177
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Concentration	**1mg/ml**
Isotype	**Rabbit IgG**
Calculated MW	**53684**

Phospho-AFX-S197 Antibody - Additional Information

Gene ID 4303

Other Names
Forkhead box protein O4, Fork head domain transcription factor AFX1, FOXO4, AFX, AFX1, MLLT7

Target/Specificity
The antibody was affinity-purified from rabbit antiserum using epitope-specific phosphopeptide column, and the antibody against non-phosphopeptide was removed using non-phosphopeptide column corresponding to the phosphorylation site.

Dilution
WB~~1:500~1:1000
IHC~~1:50~1:100
IF~~1:100~200

Format
affinity Purified IgG, in PBS, 0.02% sodium azide and 50% glycerol.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Phospho-AFX-S197 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Phospho-AFX-S197 Antibody - Protein Information

Name FOXO4

Synonyms AFX, AFX1, MLLT7

Function
Transcription factor involved in the regulation of the insulin signaling pathway. Binds to insulin-response elements (IREs) and can activate transcription of IGFBP1. Down-regulates expression of HIF1A and suppresses hypoxia-induced transcriptional activation of HIF1A-modulated genes. Also involved in negative regulation of the cell cycle. Involved in increased proteasome activity in embryonic stem cells (ESCs) by activating expression of PSMD11 in ESCs, leading to enhanced assembly of the 26S proteasome, followed by higher proteasome activity.

Cellular Location
Cytoplasm. Nucleus. Note=When phosphorylated, translocated from nucleus to cytoplasm. Dephosphorylation triggers nuclear translocation. Monoubiquitination increases nuclear localization. When deubiquitinated, translocated from nucleus to cytoplasm

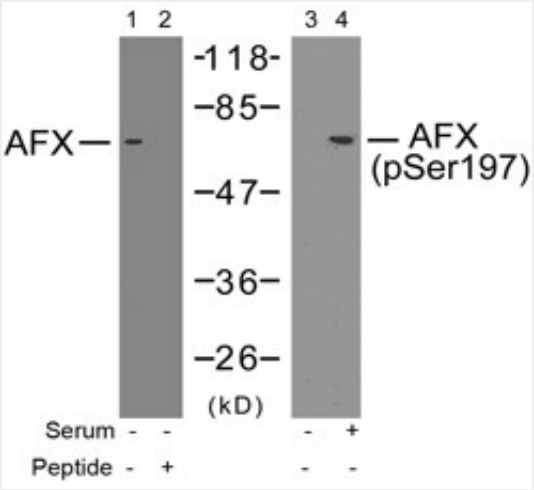
Tissue Location
Heart, brain, placenta, lung, liver, skeletal muscle, kidney and pancreas. Isoform zeta is most abundant in the liver, kidney, and pancreas

Phospho-AFX-S197 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 Cytomety
- Cell Culture

Phospho-AFX-S197 Antibody - Images



Western blot analysis of extracts from 293 cells using AFX Antibody (S197) (#AE1004a, Lane 1 and 2) and Phospho-AFX-S197 Antibody (#AE1004b, Lane 3 and 4).

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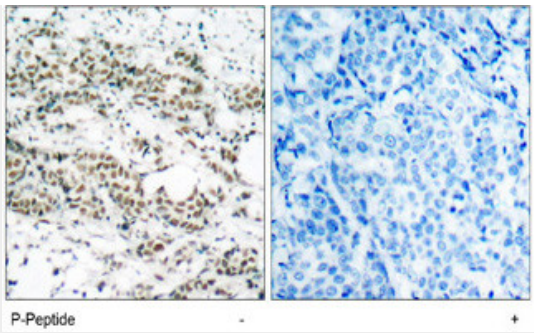
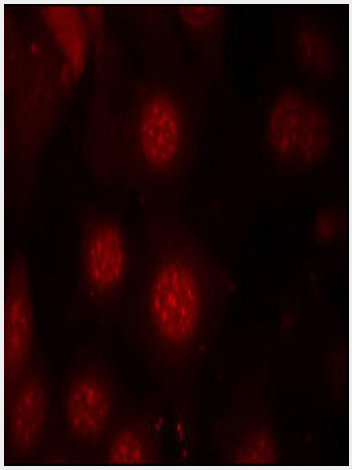


Immunohistochemical analysis of paraffinembedded human breast carcinoma tissue using Phospho-AFX-S197 Antibody (#AE1004b).



Immunofluorescence staining of methanol-fixed MCF7 cells using Phospho-AFX-S197 Antibody

Phospho-AFX-S197 Antibody - Background

This gene encodes a member of the O class of winged helix/forkhead transcription factor family. Proteins encoded by this class are regulated by factors involved in growth and differentiation indicating they play a role in these processes. A translocation involving this gene on chromosome X and the homolog of the Drosophila trithorax gene, encoding a DNA binding protein, located on chromosome 11 is associated with leukemia. Multiple transcript variants encoding different isoforms have been found for this gene.

Phospho-AFX-S197 Antibody - References

PKG inhibits TCF signaling in colon cancer cells by blocking beta-catenin expression and activating FOXO4. Kwon IK, et al. Oncogene, 2010 Jun 10. PMID 20348951.
Effects of FoxO4 overexpression on cholesterol biosynthesis, triacylglycerol accumulation, and glucose uptake. Zhu J, et al. J Lipid Res, 2010 Jun. PMID 20037138.
O-GlcNAcylation enhances FOXO4 transcriptional regulation in response to stress. Ho SR, et al. FEBS Lett, 2010 Jan 4. PMID 19932102.
FoxO4 inhibits NF-kappaB and protects mice against colonic injury and inflammation. Zhou W, et al. Gastroenterology, 2009 Oct. PMID 19560465.
14-3-3 protein masks the DNA binding interface of forkhead transcription factor FOXO4. Silhan J, et al. J Biol Chem, 2009 Jul 17. PMID 19416966.