



## Rabbit Anti-Phospho-FoxO3a (Ser318 + Ser321) antibody

SL3138R

|                               |   |
|-------------------------------|---|
| <b>Product Name:</b>          | Phospho-FoxO3a (Ser318 + Ser321)  |
| <b>Chinese Name:</b>          | 磷酸化叉头蛋白3A抗体   |
| <b>Alias:</b>                 | AF6q21; AF6q21 protein; DKFZp781A0677; FKHR2; FKHL 1; FKHL1; FKHL1P2; Forkhead (Drosophila) homolog (rhabdomyosarcoma) like 1; Forkhead box O3; Forkhead box O3A; Forkhead box protein O3; Forkhead box protein O3A; Forkhead Drosophila homolog of in rhabdomyosarcoma like 1; Forkhead homolog (rhabdomyosarcoma) like 1; Forkhead in rhabdomyosarcoma like 1; Forkhead in rhabdomyosarcoma-like 1; FOX O3A; FOXO2; foxo3; FOXO3_HUMAN; FOXO3A; MGC12739; MGC31925. |
| <b>Organism Species:</b>      | Rabbit  |
| <b>Clonality:</b>             | Polyclonal  |
| <b>React Species:</b>         | Human, Mouse, Rat, Chicken, Dog, Pig, Cow, Horse, Sheep,  |
| <b>Applications:</b>          | WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:100-500 (Paraffin sections need antigen repair)<br>not yet tested in other applications.<br>optimal dilutions/concentrations should be determined by the end user.  |
| <b>Molecular weight:</b>      | 71kDa   |
| <b>Cellular localization:</b> | The nucleuscytoplasmic  |
| <b>Form:</b>                  | Lyophilized or Liquid   |
| <b>Concentration:</b>         | 1mg/ml  |
| <b>immunogen:</b>             | KLH conjugated Synthesised phosphopeptide derived from human FoxO3a around the phosphorylation site of Ser318/321:NA(p-S)TV(p-S)GR  |
| <b>Lsotype:</b>               | IgG   |
| <b>Purification:</b>          | affinity purified by Protein A  |
| <b>Storage Buffer:</b>        | 0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.  |
| <b>Storage:</b>               | Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year  |

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|                        | when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.   |
| <b>PubMed:</b>         | <a href="#">PubMed</a>   |
| <b>Product Detail:</b> | <p>This gene belongs to the forkhead family of transcription factors which are characterized by a distinct forkhead domain. This gene likely functions as a trigger for apoptosis through expression of genes necessary for cell death. Translocation of this gene with the MLL gene is associated with secondary acute leukemia. Alternatively spliced transcript variants encoding the same protein have been observed. [provided by RefSeq, Jul 2008]</p> <p><b>Function:</b><br/>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'. 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.</p> <p><b>Subunit:</b><br/>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/MST1, which disrupts interaction with YWHAB/14-3-3-beta and leads to nuclear translocation. Interacts with PIM1.</p> <p><b>Subcellular Location:</b><br/>Cytoplasm, cytosol. Nucleus. Note=Translocates to the nucleus upon oxidative stress and in the absence of survival factors.</p> <p><b>Tissue Specificity:</b><br/>Ubiquitous.</p> <p><b>Post-translational modifications:</b><br/>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/MST1 on Ser-209 upon oxidative stress, which leads to dissociation from YWHAB/14-3-3-beta and nuclear translocation. Phosphorylated by PIM1. Phosphorylation by AMPK leads to the activation of transcriptional activity without affecting subcellular localization. Phosphorylation by MAPKAPK5 promotes nuclear localization and DNA-binding, leading to 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.</p> <p><b>DISEASE:</b></p> |

Note=A chromosomal aberration involving FOXO3 is found in secondary acute leukemias. Translocation t(6;11)(q21;q23) with MLL/HRX.

**Similarity:**

Contains 1 fork-head DNA-binding domain.

**SWISS:**

O43524

**Gene ID:**

2309

**Database links:**

[Entrez Gene: 2309](#)Human

[Entrez Gene: 56484](#)Mouse

[Entrez Gene: 294515](#)Rat

[Omim: 602681](#)Human

[SwissProt: O43524](#)Human

[SwissProt: Q9WVH4](#)Mouse

[Unigene: 220950](#)Human

[Unigene: 338613](#)Mouse

[Unigene: 24593](#)Rat

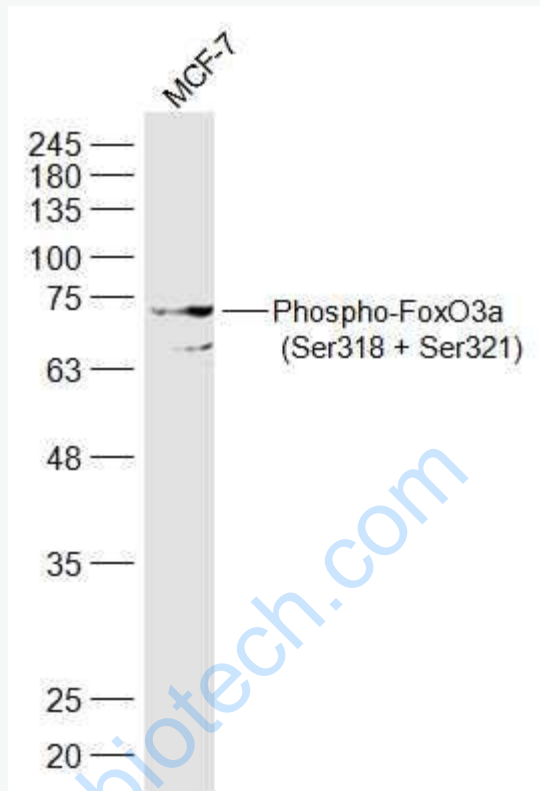
**Important Note:**

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

FOXO3a是FOX(forkhead

box)蛋白家族的一个重要成员,与细胞转化、Tumour的发生发展及其血管生成有关,是一种已知的控制细胞循环和细胞死亡的蛋白质。

Picture:



Sample:

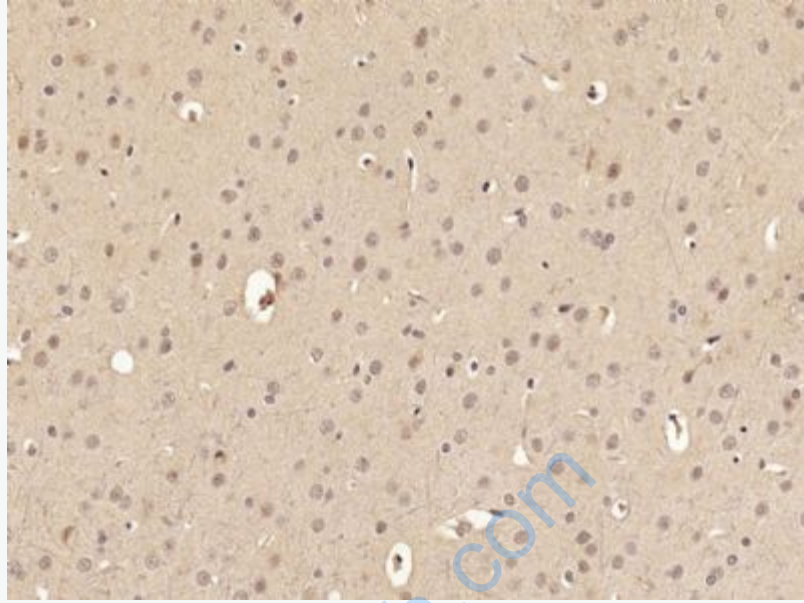
MCF-7(Human) Cell Lysate at 30 ug

Primary: Anti-Phospho-FoxO3a (Ser318 + Ser321) (SL3138R) at 1/500 dilution

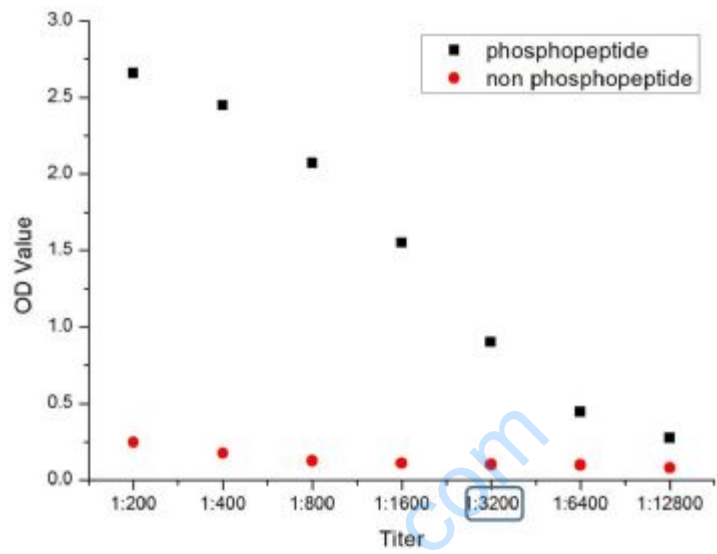
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 71 kD

Observed band size: 71 kD



Paraformaldehyde-fixed, paraffin embedded (Rat brain); Antigen retrieval by microwave in sodium citrate buffer (pH6.0) ; Block endogenous peroxidase by 3% hydrogen peroxide for 30 minutes; Blocking buffer (3% BSA) at RT for 30min; Antibody incubation with (Phospho-FoxO3a (Ser318 + Ser321)) Polyclonal Antibody, Unconjugated (SL3138R) at 1:400 overnight at 4°C, followed by conjugation to the secondary antibody (labeled with HRP) and DAB staining.



phosphopeptide non phosphopeptide