

# Phospho-FoxO1 (Thr24)/FoxO3a (Thr32) Antibody

- Small 100  $\mu$ l  
(10 western blots)
- Large 300  $\mu$ l  
(30 western blots)

rev. 08/17/10

This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

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Entrez-Gene ID #2308  
Swiss-Prot Acc. #Q12778

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, IP Endogenous	H, M, R, Mk	78 to 82, 95 kDa	Rabbit**

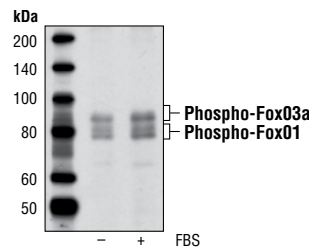
**Background:** The Forkhead family of transcription factors is involved in tumorigenesis in rhabdomyosarcoma and acute leukemias (1–3). Within the family, three members (FoxO1, FoxO4 and FoxO3a) have sequence similarity to the nematode orthologue DAF-16, which mediates signaling via a pathway involving IGF1R, PI3K and Akt (4–6). There are three Akt phosphorylation sites in the FKHR proteins: Thr24, Ser256 and Ser319. Phosphorylation of FKHR family members at these sites by Akt promotes cell survival and regulates the cell cycle. Phosphorylation of FKHR proteins regulates their nuclear translocation and target gene transcription (7,8).

**Specificity/Sensitivity:** Phospho-FoxO1 (Thr24)/FoxO3a (Thr32) Antibody detects endogenous levels of FoxO1/FoxO3a only when phosphorylated at threonine 24 of FoxO1 or threonine 32 of FoxO3a. The antibody cross-reacts with phosphorylated FoxO4 at threonine 28, but not with FoxO1 family members phosphorylated at other sites.

**Source/Purification:** Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Thr28 of human FoxO4. Antibodies are purified by protein A and peptide affinity chromatography.

### Background References:

- Anderson, M.J. et al. (1998) *Genomics* 47, 187–199.
- Galili, N. et al. (1993) *Nat. Genet.* 5, 230–235.
- Borkhardt, A. et al. (1997) *Oncogene* 14, 195–202.
- Nakae, J. et al. (1999) *J. Biol. Chem.* 274, 5982–5985.
- Rena, G. et al. (1999) *J. Biol. Chem.* 274, 17179–17183.
- Guo, S. et al. (1999) *J. Biol. Chem.* 274, 17184–17192.
- Brunet, A. et al. (1999) *Cell* 96, 857–868.
- Medema, R.H. (2000) *Nature* 404, 782–787.



Western blot analysis of extracts from HT29 cells, serum starved or serum treated, using Phospho-FoxO1 (Thr24)/FoxO3a (Thr32) Antibody.

**Storage:** Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100  $\mu$ g/ml BSA and 50% glycerol. Store at  $-20^{\circ}\text{C}$ . Do not aliquot the antibody.

\*Species cross-reactivity is determined by western blot.

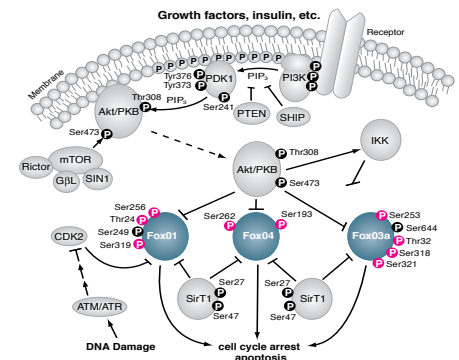
\*\*Anti-rabbit secondary antibodies must be used to detect this antibody.

### Recommended Antibody Dilutions:

Western blotting	1:1000
Immunoprecipitation	1:50

For application specific protocols please see the web page for this product at [www.cellsignal.com](http://www.cellsignal.com).

Please visit [www.cellsignal.com](http://www.cellsignal.com) for a complete listing of recommended companion products.



**IMPORTANT:** For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at  $4^{\circ}\text{C}$  with gentle shaking, overnight.

**Applications Key:** W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide

**Species Cross-Reactivity Key:** H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebra fish B—bovine

Dg—dog Pg—pig Sc—S. cerevisiae All—all species expected Species enclosed in parentheses are predicted to react based on 100% sequence homology.