

# FoxO4 Antibody

✓ 100 µl  
(10 Western mini-blots)

**Orders** ■ 877-616-CELL (2355)  
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rev. 08/12/09

This product is for *in vitro* research use only and is not intended for use in humans or animals.  
This product is not intended for use as a therapeutic or in diagnostic procedures.

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W Endogenous	H, M, R, Mk	65 kDa	Rabbit**

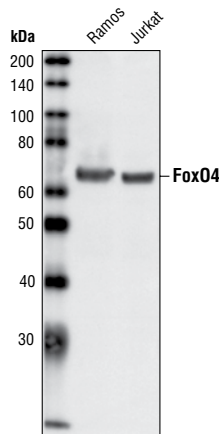
**Background:** The Forkhead family of transcription factors is involved in tumorigenesis in rhabdomyosarcoma and acute leukemias (1–3). Within the family, three members (FoxO1, FoxO4 and FoxO3a) have sequence similarity to the nematode orthologue DAF-16, which mediates signaling via a pathway involving 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:** The FoxO4 Antibody detects endogenous levels of FoxO4. The antibody is sensitive to phosphorylation within the antigen and preferentially detects unphosphorylated FoxO4.

**Source/Purification:** Polyclonal antibodies are produced by immunizing rabbits with a synthetic peptide (KLH-coupled) corresponding to residues of human FoxO4. Antibodies are purified by protein A and peptide affinity chromatography.

### Background References:

- (1) Anderson, M.J. et al. (1998) *Genomics* 47, 187–199.
- (2) Galili, N. et al. (1993) *Nat. Genet.* 5, 230–235.
- (3) Borkhardt, A. et al. (1997) *Oncogene* 14, 195–202.
- (4) Nakae, J. et al. (1999) *J. Biol. Chem.* 274, 15982–15985.
- (5) Rena, G. et al. (1999) *J. Biol. Chem.* 274, 17179–17183.
- (6) Guo, S. et al. (1999) *J. Biol. Chem.* 274, 17184–17192.
- (7) Brunet, A. et al. (1999) *Cell* 96, 857–868.
- (8) Medema, R.H. (2000) *Nature* 404, 782–787.



Western blot analysis of extracts from Ramos and Jurkat cells, using FoxO4 Antibody.

**Storage:** Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

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

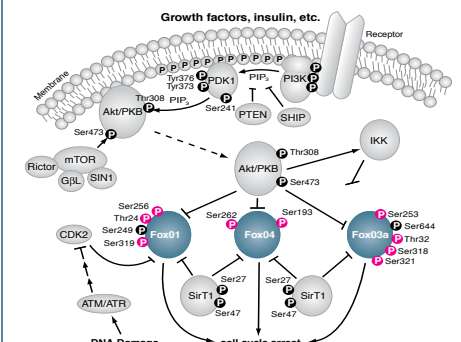
\*\*Anti-rabbit secondary antibodies must be used to detect this antibody.

### Recommended Antibody Dilutions:

Western blotting 1:1000

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.



FKHR Signaling Pathway

**IMPORTANT:** For Western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°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—zebrafish B—bovine  
Dg—dog Pg—pig Sc—S. cerevisiae All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.