

FoxO1 (L27) Antibody

✓ 100 µl
(10 western blots)

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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.

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

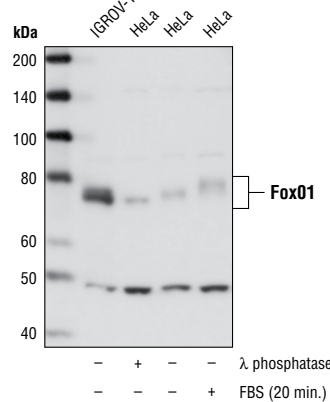
Background: The Forkhead family of transcription factors is involved in tumorigenesis in rhabdomyosarcoma and acute leukemias (1–3). Within the family, three members (FoxO1, FoxO4 and FoxO3a) have sequence similarity to the nematode orthologue DAF-16, which mediates signaling via a pathway involving IGF1R, PI3K and Akt (4–6). Active forkhead members act as tumor suppressors by promoting cell cycle arrest and apoptosis. Increased expression of any FoxO member results in the activation of the cell cycle inhibitor p27Kip1. Forkhead transcription factors play a part in TGF-β-mediated upregulation of p21CIP1, a process negatively regulated through PI3K (7). Increased proliferation results when forkhead transcription factors are inactivated through phosphorylation by Akt at Thr24, Ser256 and Ser319, which results in nuclear export and inhibition of transcription factor activity (8). Forkhead transcription factors can also be inhibited by the deacetylase sirtuin (SirT1) (9).

Specificity/Sensitivity: FoxO1 (L27) Antibody detects endogenous levels of total FoxO1 protein and does not cross-react with endogenous FoxO3a or FoxO4. The antibody also cross-reacts with an unidentified protein at 95 kDa.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to amino acids within the amino terminus of mouse FoxO1. 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) Seoane, J. et al. (2004) *Cell* 117, 211–223.
- (8) Arden, K.C. (2004) *Mol. Cell* 14, 416–418.
- (9) Yang, Y. et al. (2005) *EMBO J.* 24, 1021–1032.



Western blot analysis of extracts from IGROV-1 cells and untreated, λ phosphatase- or FBS-treated (20 min.) HeLa cells using FoxO1 (L27) Antibody.

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

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.

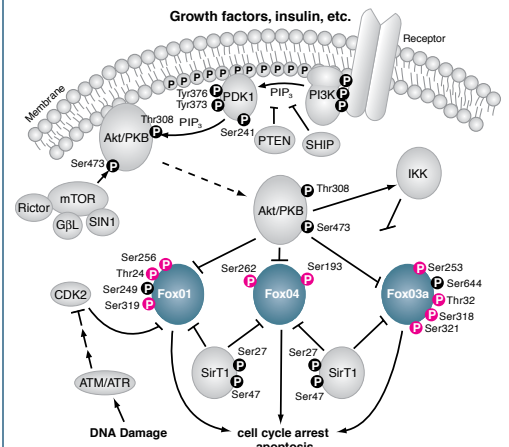
**Anti-rabbit secondary antibodies must be used to detect this antibody.

Recommended Antibody Dilutions:

Western blotting 1:1000

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit 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°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 Ce—C. elegans Hr—horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.