

FoxK1 Antibody

✓ 100 µl
(10 western blots)



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New 12/12

For Research Use Only. Not For Use In Diagnostic Procedures.

Applications W, IP Endogenous	Species Cross-Reactivity* H, M, Mk	Molecular Wt. 97 kDa	Source Rabbit**
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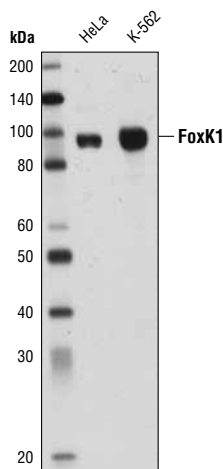
Background: Forkhead box (Fox) proteins are a family of evolutionarily conserved transcription factors defined by the presence of a winged helix DNA binding domain called a Forkhead box (1). In humans, there are over 40 known Fox protein family members, divided into 19 subfamilies, which have evolved to regulate gene transcription in diverse and highly specialized biological contexts throughout development (2). Mutations that disrupt the expression of Fox gene family members have consequently been implicated in a broad array of human disorders, including immunological dysfunction, infertility, speech/language disorders, and cancer (3,4).

FoxK1 belongs to a subfamily of Fox proteins along with FoxK2. FoxK1 functions as a transcriptional repressor of downstream target genes including FoxO4, Mef2, P21, PPGB, and SM α -actin (5-7). There are two isoforms of FoxK1: FoxK1- α and FoxK1- β . The β isoform has a truncated C terminus compared to the α isoform. The two isoforms of FoxK1 show reciprocal expression patterns during muscle regeneration. FoxK1- β is expressed mainly in quiescent satellite cells (8), whereas FoxK1- α is the dominant isoform in proliferating myoblasts from activated satellite cells (9). Both isoforms of FoxK1 jointly regulate proliferation and differentiation of myogenic stem cells during development and muscle regeneration (10).

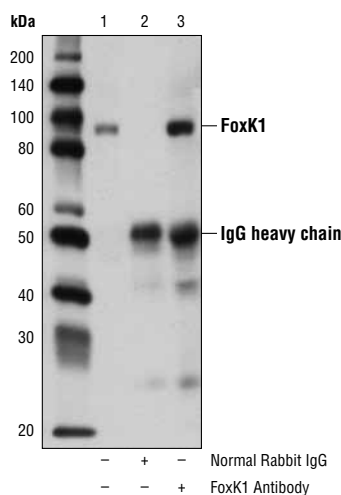
Specificity/Sensitivity: FoxK1 Antibody recognizes endogenous levels of total FoxK1 protein.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Arg692 of mouse FoxK1 protein. Antibodies are purified by protein A and peptide affinity chromatography.

Immunoprecipitation of FoxK1 from HeLa cell extracts, using Normal Rabbit IgG #2729 (lane 2) or FoxK1 Antibody (lane 3). Lane 1 is 10% input. Western blot analysis was performed using FoxK1 Antibody.



Western blot analysis of extracts from HeLa and K-562 cells using FoxK1 Antibody.



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.

Entrez-Gene ID #221937
Swiss-Prot Acc. #P85037

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
Immunoprecipitation	1:50

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

Please visit www.cellsignaling.com for a complete listing of recommended complementary products.

Background References:

- (1) Myatt, S.S. and Lam, E.W. (2007) *Nat Rev Cancer* 7, 847-59.
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- (4) Benayoun, B.A. et al. (2011) *Trends Genet*, Epub ahead of print.
- (5) Hawke, T.J. et al. (2003) *J Biol Chem* 278, 4015-20.
- (6) Freddie, C.T. et al. (2007) *Nucleic Acids Res* 35, 5203-12.
- (7) Shi, X. et al. (2012) *J Cell Sci*, Epub ahead of print.
- (8) Garry, D.J. et al. (1997) *Dev Biol* 188, 280-94.
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- (10) Garry, D.J. et al. (2000) *Proc Natl Acad Sci U S A* 97, 5416-21.