

#12025 Store at -20C

FoxK1 Antibody


Cell Signaling
TECHNOLOGY®

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB, IP	H M Mk	Endogenous	97	Rabbit	#P85037	221937

Product Usage Information

Application

Western Blotting

Immunoprecipitation

Dilution

1:1000

1:50

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.

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.

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).

Background References

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- Jackson, B.C. et al. (2010) *Hum Genomics* 4, 345-52.
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- Shi, X. et al. (2012) *J Cell Sci* , .
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Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

WB: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **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
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

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