

FoxK1 Antibody



Orders: 877-616-CELL (2355)
orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

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

Applications: W, IP	Reactivity: H M Mk	Sensitivity: Endogenous	MW (kDa): 97	Source/Isotype: Rabbit	UniProt ID: #P85037	Entrez-Gene Id: 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 *ACTA2* (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

1. Myatt, S.S. and Lam, E.W. (2007) *Nat Rev Cancer* 7, 847-59.
2. Jackson, B.C. et al. (2010) *Hum Genomics* 4, 345-52.
3. Hannenhalli, S. and Kaestner, K.H. (2009) *Nat Rev Genet* 10, 233-40.
4. Benayoun, B.A. et al. (2011) *Trends Genet* 10, 224-32.
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* 125, 5329-37.
8. Garry, D.J. et al. (1997) *Dev Biol* 188, 280-94.
9. Yang, Q. et al. (1997) *Mol Cell Biol* 17, 5236-43.
10. Garry, D.J. et al. (2000) *Proc Natl Acad Sci USA* 97, 5416-21.

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

W: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human **M:** Mouse **Mk:** Monkey

Trademarks and Patents

Cell Signaling Technology is a trademark of Cell Signaling Technology, Inc.

All other trademarks are the property of their respective owners. Visit cellsignal.com/trademarks for more information.

Limited Uses

Except as otherwise expressly agreed in a writing signed by a legally authorized representative of CST, the following terms apply to Products provided by CST, its affiliates or its distributors. Any Customer's terms and conditions that are in addition to, or different from, those contained herein, unless separately accepted in writing by a legally authorized representative of CST, are rejected and are of no force or effect.

Products are labeled with For Research Use Only or a similar labeling statement and have not been approved, cleared, or licensed by the FDA or other regulatory foreign or domestic entity, for any purpose. Customer shall not use any Product for any diagnostic or therapeutic purpose, or otherwise in any manner that conflicts with its labeling statement. Products sold or licensed by CST are provided for Customer as the end-user and solely for research and development uses. Any use of Product for diagnostic, prophylactic or therapeutic purposes, or any purchase of Product for resale (alone or as a component) or other commercial purpose, requires a separate license from CST. Customer shall (a) not sell, license, loan, donate or otherwise transfer or make available any Product to any third party, whether alone or in combination with other materials, or use the Products to manufacture any commercial products, (b) not copy, modify, reverse engineer, decompile, disassemble or otherwise attempt to discover the underlying structure or technology of the Products, or use the Products for the purpose of developing any products or services that would compete with CST products or services, (c) not alter or remove from the Products any trademarks, trade names, logos, patent or copyright notices or markings, (d) use the Products solely in accordance with CST Product Terms of Sale and any applicable documentation, and (e) comply with any license, terms of service or similar agreement with respect to any third party products or services used by Customer in connection with the Products.