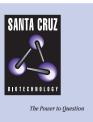
## SANTA CRUZ BIOTECHNOLOGY, INC.

# FOXL1 (P-20): sc-55651



#### BACKGROUND

FOXL1 is a 337 amino acid protein encoded by the mouse gene Foxl1. FOXL1 belongs to the forkhead family and contains one forkhead DNA-binding domain. The HNF3/fork head family includes a large number of transcription factors that share a structurally related DNA binding domain. Forkhead factors are known to play important roles both during development and in adults. FOXL1 is a winged helix transcriptional regulator expressed in the mesenchymal layer of developing and mature gastrointestinal tract. FOXL1- deficient mice exhibit various defects not only in the epithelial layer of the gastrointestinal tract but also in gut-associated lymphoid tissues. In the small intestine of FOXL1-deficient mice, the formation of Peyer's patches is affected, particularly in the caudal region. FOXL1 is a mesenchymal modifier of the adenomatous polyposis coli (APC) gene products and plays a key role in gastrointestinal tumorigenesis.

## REFERENCES

- Kaestner, K.H., Lee, K.H., Schlöndorff, J., Hiemisch, H., Monaghan, A.P. and Schütz, G. 1993. Six members of the mouse forkhead gene family are developmentally regulated. Proc. Natl. Acad. Sci. USA 90: 7628-7631.
- Kaestner, K.H., Bleckmann, S.C., Monaghan, A.P., Schlöndorff, J., Mincheva, A., Lichter, P. and Schütz, G. 1996. Clustered arrangement of winged helix genes fkh-6 and MFH-1: possible implications for mesoderm development. Development 122: 1751-1758.
- Perreault, N., Katz, J.P., Sackett, S.D. and Kaestner, K.H. 2001. FOXL1 controls the Wnt/β-catenin pathway by modulating the expression of proteoglycans in the gut. J. Biol. Chem. 276: 43328-43333.
- Mazet, F., Yu, J.K., Liberles, D.A., Holland, L.Z. and Shimeld, S.M. 2003. Phylogenetic relationships of the Fox (Forkhead) gene family in the Bilateria. Gene 316: 79-89.
- Fukuda, K., Yoshida, H., Sato, T., Furumoto, T.A., Mizutani-Koseki, Y., Suzuki, Y., Saito, Y., Takemori, T., Kimura, M., Sato, H., Taniguchi, M., Nishikawa, S., Nakayama, T. and Koseki, H. 2003. Mesenchymal expression of FOXL1, a winged helix transcriptional factor, regulates generation and maintenance of gut-associated lymphoid organs. Dev. Biol. 255: 278-289.
- Katz, J.P., Perreault, N., Goldstein, B.G., Chao, H.H., Ferraris, R.P. and Kaestner, K.H. 2004. FOXL1 null mice have abnormal intestinal epithelia, postnatal growth retardation, and defective intestinal glucose uptake. Am. J. Physiol. Gastrointest. Liver Physiol. 287: G856-G864.
- Perreault, N., Sackett, S.D., Katz, J.P., Furth, E.E. and Kaestner, K.H. 2005. FOXL1 is a mesenchymal modifier of Min in carcinogenesis of stomach and colon. Genes Dev. 19: 311-315.
- Takano-Maruyama, M., Hase, K., Fukamachi, H., Kato, Y., Koseki, H. and Ohno, H. 2006. FOXL1-deficient mice exhibit aberrant epithelial cell positioning resulting from dysregulated EphB/EphrinB expression in the small intestine. Am. J. Physiol. Gastrointest. Liver Physiol. 291: G163-G170.

## CHROMOSOMAL LOCATION

Genetic locus: Foxl1 (mouse) mapping to 8 E1.

#### SOURCE

FOXL1 (P-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of FOXL1 of mouse origin.

## PRODUCT

Each vial contains 200  $\mu g$  lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-55651 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

#### **APPLICATIONS**

FOXL1 (P-20) is recommended for detection of FOXL1 of mouse origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for FOXL1 siRNA (m): sc-77416, FOXL1 shRNA Plasmid (m): sc-77416-SH and FOXL1 shRNA (m) Lentiviral Particles: sc-77416-V.

Molecular Weight of FOXL1: 36 kDa.

## **RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluo-rescence: use donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

#### **STORAGE**

Store at 4° C, \*\*D0 NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

#### **RESEARCH USE**

For research use only, not for use in diagnostic procedures.

#### **PROTOCOLS**

See our web site at www.scbt.com or our catalog for detailed protocols and support products.