

FOXL1 (N-15): sc-55650

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/forkhead 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

1. Kaestner, K.H., et al. 1993. Six members of the mouse forkhead gene family are developmentally regulated. *Proc. Natl. Acad. Sci. USA* 90: 7628-7631.
2. Kaestner, K.H., et al. 1996. Clustered arrangement of winged helix genes *fkh-6* and *MFH-1*: possible implications for mesoderm development. *Development* 122: 1751-1758.
3. Perreault, N., et al. 2001. *Foxl1* controls the Wnt/ β -catenin pathway by modulating the expression of proteoglycans in the gut. *J. Biol. Chem.* 276: 43328-43333.
4. Mazet, F., et al. 2003. Phylogenetic relationships of the Fox (Forkhead) gene family in the Bilateria. *Gene* 316: 79-89.
5. Fukuda, K., et al. 2003. Mesenchymal expression of *Foxl1*, a winged helix transcriptional factor, regulates generation and maintenance of gut-associated lymphoid organs. *Dev. Biol.* 255: 278-289.
6. Katz, J.P., et al. 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.
7. Perreault, N., et al. 2005. *Foxl1* is a mesenchymal modifier of *Min* in carcinogenesis of stomach and colon. *Genes Dev.* 19: 311-315.
8. Takano-Maruyama, M., et al. 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 (human) mapping to 16q24.1.

SOURCE

FOXL1 (N-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of FOXL1 of human origin.

STORAGE

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

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-55650 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

FOXL1 (N-15) is recommended for detection of FOXL1 of human 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).

FOXL1 (N-15) is also recommended for detection of FOXL1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for FOXL1 siRNA (h): sc-106746, FOXL1 shRNA Plasmid (h): sc-106746-SH and FOXL1 shRNA (h) Lentiviral Particles: sc-106746-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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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.