

FOXF2 (F-25): sc-133590

BACKGROUND

The FOX family of transcription factors share a common DNA binding domain termed a winged-helix or forkhead domain. Many FOX proteins play important roles in development, metabolism, cancer and aging. Development of the vertebrate gut is controlled by paracrine crosstalk between the endodermal epithelium and the associated splanchnic mesoderm. FOXF2 (forkhead box F2), also known as FKHL or FREAC2, is expressed in lung and placenta, and has been shown to transcriptionally activate several lung-specific genes. FOXF2 interacts with transcription factors TFIIB and TBP, and may be involved in regulating transcription in embryogenesis and pattern formation in multicellular organisms. FOXF2-deficient mice develop cleft palate and an abnormal tongue, which suggests that FOXF2 may be critical for palatogenesis.

REFERENCES

- Hellqvist, M., et al. 1996. Differential activation of lung-specific genes by two forkhead proteins, FREAC1 and FREAC2. *J. Biol. Chem.* 271: 4482-4490.
- Blixt, A., et al. 1998. The two-exon gene of the human forkhead transcription factor FREAC2 (FKHL6) is located at 6p25.3. *Genomics* 53: 387-390.
- Hellqvist, M., et al. 1998. The human forkhead protein FREAC2 contains two functionally redundant activation domains and interacts with TBP and TFIIB. *J. Biol. Chem.* 273: 23335-23343.
- Online Mendelian Inheritance in Man, OMIM™. 1998. Johns Hopkins University, Baltimore, MD. MIM Number: 603250. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Aitola, M., et al. 2000. Forkhead transcription factor FOXF2 is expressed in mesodermal tissues involved in epithelio-mesenchymal interactions. *Dev. Dyn.* 218: 136-149.
- Wang, T., et al. 2003. Forkhead transcription factor FOXF2 (LUN)-deficient mice exhibit abnormal development of secondary palate. *Dev. Biol.* 259: 83-94.

CHROMOSOMAL LOCATION

Genetic locus: FOXF2 (human) mapping to 6p25.3.

SOURCE

FOXF2 (F-25) is a Protein A purified rabbit polyclonal antibody raised against synthetic FOXF2 peptide of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

STORAGE

Store at 4° C, **DO 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.

APPLICATIONS

FOXF2 (F-25) is recommended for detection of FOXF2 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (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 FOXF2 siRNA (h): sc-105370, FOXF2 shRNA Plasmid (h): sc-105370-SH and FOXF2 shRNA (h) Lentiviral Particles: sc-105370-V.

Molecular Weight (predicted) of FOXF2: 46 kDa.

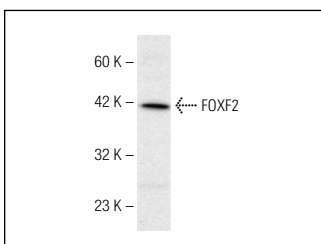
Molecular Weight (observed) of FOXF2: 40 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227 or HeLa whole cell lysate: sc-2200.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



FOXF2 (F-25): sc-133590. Western blot analysis of FOXF2 expression in Hep G2 whole cell lysate.

PROTOCOLS

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