

# FOXF2 (L-29): sc-101043

## 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, FREAC-1 and FREAC-2. *J. Biol. Chem.* 271: 4482-4490.
- Blixt, A., et al. 1998. The two-exon gene of the human forkhead transcription factor FREAC-2 (FKHL6) is located at 6p25.3. *Genomics* 53: 387-390.
- Hellqvist, M., et al. 1998. The human forkhead protein FREAC-2 contains two functionally redundant activation domains and interacts with TBP and TFIIB. *J. Biol. Chem.* 273: 23335-23343.
- Online Mendelian Inheritance in Man, OMIM<sup>™</sup>. 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.
- Katoh, M., et al. 2004. Human FOX gene family (review). *Int. J. Oncol.* 25: 1495-1500.

## CHROMOSOMAL LOCATION

Genetic locus: FOXF2 (human) mapping to 6p25.3; Foxf2 (mouse) mapping to 13 A3.2.

## SOURCE

FOXF2 (L-29) is a mouse monoclonal antibody raised against recombinant FOXF2 of human origin.

## PRODUCT

Each vial contains 100 µg IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

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

## APPLICATIONS

FOXF2 (L-29) is recommended for detection of FOXF2 of mouse, rat and 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) 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 siRNA (m): sc-145225, FOXF2 shRNA Plasmid (h): sc-105370-SH, FOXF2 shRNA Plasmid (m): sc-145225-SH, FOXF2 shRNA (h) Lentiviral Particles: sc-105370-V and FOXF2 shRNA (m) Lentiviral Particles: sc-145225-V.

Molecular Weight (predicted) of FOXF2: 46 kDa.

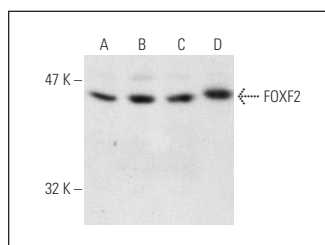
Molecular Weight (observed) of FOXF2: 40 kDa.

Positive Controls: THP-1 nuclear extract: sc-24963, HeLa nuclear extract: sc-2120 or Hep G2 nuclear extract: sc-364819.

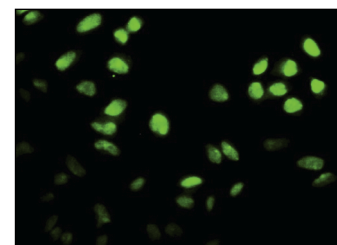
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850.

## DATA



FOXF2 (L-29): sc-101043. Western blot analysis of FOXF2 expression in Hep G2 (A), HeLa (B), A549 (C) and THP-1 (D) nuclear extracts.



FOXF2 (L-29): sc-101043. Immunofluorescence staining of paraformaldehyde-fixed HeLa cells showing nuclear localization.

## SELECT PRODUCT CITATIONS

- Chen, W., et al. 2017. MicroRNA-130a is upregulated in colorectal cancer and promotes cell growth and motility by directly targeting forkhead box F2. *Mol. Med. Rep.* 16: 5241-5248.

## RESEARCH USE

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