SANTA CRUZ BIOTECHNOLOGY, INC.

FOXQ1 (C-9): sc-166265

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The FOX family of transcription factors share a common DIUA binding domain termed a winged-helix or forkhead domain. Many FOX proteins play important roles in development, metabolism, cancer and aging. FOXQ1 is mutant in satin homozygous mice. Satin mice are characterized by having silky coats with high sheen as a result of structurally abnormal medulla cells and defects in the differentiation of the hair shaft. Satin mice also display suppressed natural killer cell function and alloimmune cytotoxic T-cell function, which implicates FOXQ1 in lymphocyte development. FOXQ1 is predominantly expressed during embryogenesis and in a tissue-restricted expression pattern in adult tissues, including stomach, trachea, bladder and salivary gland. FOXQ1 is overexpressed in colorectal adenocarcinoma and lung carcinoma cell lines.

REFERENCES

1. Hoggatt, A.M., et al. 2000. Hepatocyte nuclear factor-3 homologue 1 (HFH-1) represses transcription of smooth muscle-specific genes. J. Biol. Chem. 275: 31162-31170.
2. Bieller, A., et al. 2001. Isolation and characterization of the human forkhead gene FOXQ1. DNA Cell Biol. 20: 555-561.

CHROMOSOMAL LOCATION

Genetic locus: FOXQ1 (human) mapping to 6p25.3; Foxq1 (mouse) mapping to 13 A3.2.

SOURCE

FOXQ1 (C-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 176-202 within an internal region of FOXQ1 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-166265 X, 200 µg/0.1 ml.

TNAP (F-4) is available conjugated to agarose (sc-166261 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166261 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166261 PE), fluorescein (sc-166261 FITC), Alexa Fluor® 488 (sc-166261 AF488), Alexa Fluor® 546 (sc-166261 AF546), Alexa Fluor® 594 (sc-166261 AF594) or Alexa Fluor® 647 (sc-166261 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-166261 AF680) or Alexa Fluor® 790 (sc-166261 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-166265 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

FOXQ1 (C-9) is recommended for detection of FOXQ1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

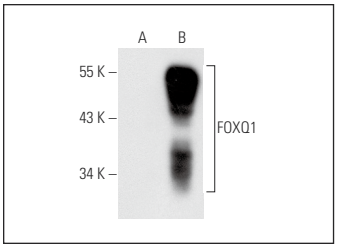
Suitable for use as control antibody for FOXQ1 siRNA (h): sc-60660, FOXQ1 siRNA (m): sc-60661, FOXQ1 shRNA Plasmid (h): sc-60660-SH, FOXQ1 shRNA Plasmid (m): sc-60661-SH, FOXQ1 shRNA (h) Lentiviral Particles: sc-60660-V and FOXQ1 shRNA (m) Lentiviral Particles: sc-60661-V.

FOXQ1 (C-9) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

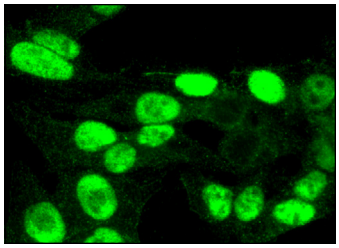
Molecular Weight of FOXQ1: 41 kDa.

Positive Controls: FOXQ1 (m): 293T Lysate: sc-120313 or HeLa whole cell lysate: sc-2200.

DATA



FOXQ1 (C-9): sc-166265. Western blot analysis of FOXQ1 expression in non-transfected: sc-117752 (**A**) and mouse FOXQ1 transfected: sc-120313 (**B**) 293T whole cell lysates.



FOXQ1 (C-9): sc-166265. Immunofluorescence staining of formalin-fixed Hep G2 cells showing nuclear localization.

SELECT PRODUCT CITATIONS

1. Kim, S.H., et al. 2016. Forkhead box Q1 is a novel target of breast cancer stem cell inhibition by diallyl trisulfide. J. Biol. Chem. 291: 13495-13508.
2. Liu, Z., et al. 2020. Overexpression of miR-106a enhances oxaliplatin sensitivity of colorectal cancer through regulation of FOXQ1. Oncol. Lett. 19: 663-670.
3. Liu, Z., et al. 2021. Identification of testicular Foxq1 as a critical modulator of lactate metabolism in mouse Sertoli cells. Histochem. Cell Biol. 156: 227-237.
4. Liang, L., et al. 2023. miR-124-3p improves mitochondrial function of renal tubular epithelial cells in db/db mice. FASEB J. 37: e22794.
5. Wang, X., et al. 2024. HNRNPA2B1 promotes oral squamous cell carcinogenesis via m^6A-dependent stabilization of FOXQ1 mRNA stability. IUBMB Life 76: 437-450.

RESEARCH USE

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