SANTA CRUZ BIOTECHNOLOGY, INC.

# FOXR2 (2C1): sc-517037

## BACKGROUND

The Forkhead-box (FOX) genes comprise a superfamily of at least 43 members that express proteins which are involved in transcriptional regulation and may be associated with the pathogenesis of various cancers. FOXR2 (forkhead box protein R2), also known as FOXN6 (forkhead box protein N6), is a 311 amino acid nuclear protein that belongs to the FOX family and contains one fork-head DNA-binding domain. Like other members of the FOX family, FOXR2 is not abundantly expressed in normal tissues but is found at very high levels in breast cancer and primary cancer cell lines and is thought to act as a transcription factor. Through chromosomal aberrations such as retroviral integration, gene amplification or translocation, FOXR2 may be involved the development of certain invasive carcinomas.

## REFERENCES


1. Katoh, M. and Katoh, M. 2004. Identification and characterization of human FOXK1 gene in silico. Int. J. Mol. Med. 14: 127-132.
2. Katoh, M. and Katoh, M. 2004. Germ-line mutation of Foxn5 gene in mouse lineage. Int. J. Mol. Med. 14: 463-467.
3. Katoh, M. and Katoh, M. 2004. Characterization of human FOXN4 gene in silico. Int. J. Mol. Med. 14: 949-953.
4. Katoh, M. and Katoh, M. 2004. Identification and characterization of human FOXN6, mouse Foxn6, and rat Foxn6 genes in silico. Int. J. Oncol. 25: 219-223.


## CHROMOSOMAL LOCATION

Genetic locus: FOXR2 (human) mapping to Xp11.21.

## SOURCE

FOXR2 (2C1) is a mouse monoclonal antibody raised against amino acids 1-311 representing full length FOXR2 of human origin.

## PRODUCT

Each vial contains 100 µg $IgG_1$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

FOXR2 (2C1) is recommended for detection of FOXR2 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 FOXR2 siRNA (h): sc-90964, FOXR2 shRNA Plasmid (h): sc-90964-SH and FOXR2 shRNA (h) Lentiviral Particles: sc-90964-V.

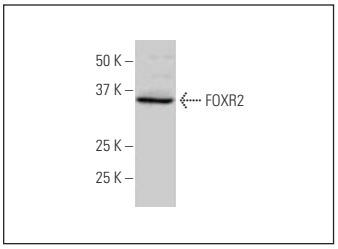
Molecular Weight of FOXR2: 36 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

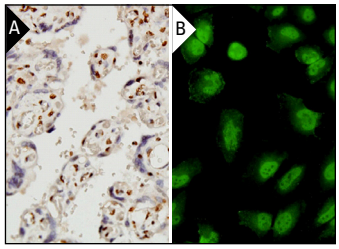
## RECOMMENDED SUPPORT REAGENTS

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™ Molecular Weight Standards: sc-2035, UltraCruz® 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® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA




FOXR2 (2C1); sc-517037. Western blot analysis of FOXR2 expression in HeLa whole cell lysate.




FOXR2 (2C1); sc-517037. Immunoperoxidase staining of formalin fixed, paraffin-embedded human placenta tissue showing nuclear staining of trophoblastic cells (**A**). Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear localization (**B**).

## SELECT PRODUCT CITATIONS


1. Luo, Z., et al. 2021. E3 ubiquitin ligase PJA1 regulates lung adenocarcinoma apoptosis and invasion through promoting FOXR2 degradation. Biochem. Biophys. Res. Commun. 556: 106-113.


## 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.

## PROTOCOLS

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