

# FOXR2 (SY-7): sc-101042

## 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 forkhead 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.
5. Katoh, M. and Katoh, M. 2004. Human FOX gene family. *Int. J. Oncol.* 25: 1495-1500.

## CHROMOSOMAL LOCATION

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

## SOURCE

FOXR2 (SY-7) is a mouse monoclonal antibody raised against recombinant FOXR2 of human origin.

## PRODUCT

Each vial contains 50 µg IgG<sub>1</sub> in 500 µl 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.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

## APPLICATIONS

FOXR2 (SY-7) 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.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (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-mouse IgG-FITC: sc-2010 (dilution range: 1:100-1:400) or goat anti-mouse IgG-TR: sc-2781 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2050 or ABC: sc-2017 mouse IgG Staining Systems.