

# FOXJ2 (F-19): sc-54374



The Power to Question

## BACKGROUND

FOXJ2, forkhead box protein J2, is a 574 amino acid protein encoded by the human gene FOXJ2. FOXJ2 is a novel forkhead factor, belonging to the forkhead family, with a dual DNA binding specificity. The HNF-3/forkhead family includes a large number of transcription factors that share a structurally related DNA binding domain. Forkhead factors are known to play important roles both during development and in adults. In the testis, FOXJ2 is expressed from pachytene spermatocytes to round spermatids, but not in spermatogonia. In addition to the germ lineage, only Sertoli cells of the testis showed expression of FOXJ2. In the ovary, only granulosa cells of the follicles express the factor. Neither mature spermatozoa nor oocytes have been found to express FOXJ2. However, both the trophectoderm (TE) and the inner cell mass (ICM) cell layers of the blastocyst express FOXJ2.

## REFERENCES

1. Perez-Sánchez, C., et al. 2000. FHX, a novel forkhead factor with a dual DNA binding specificity. *J. Biol. Chem.* 275: 12909-12916.
2. Perez-Sánchez, C., et al. 2000. FHX.L and FHX.S, two isoforms of the human forkhead factor FHX (FOXJ2) with differential activity. *J. Mol. Biol.* 301: 795-806.
3. Gómez-Ferrería, M.A. and Rey-Campos, J. 2003. Functional domains of FOXJ2. *J. Mol. Biol.* 329: 631-644.
4. Katoh, M. and Katoh, M. 2004. Human FOX gene family (Review). *Int. J. Oncol.* 25: 1495-1500.
5. Tu, Q., et al. 2006. Sea urchin forkhead gene family: phylogeny and embryonic expression. *Dev. Biol.* 300: 49-62.
6. Wijchers, P.J., et al. 2006. Identification of forkhead transcription factors in cortical and dopaminergic areas of the adult murine brain. *Brain Res.* 1068: 23-33.
7. Choi, V.M., et al. 2006. Developmental expression of FOXJ1.2, FOXJ2, and FOXQ1 in *Xenopus tropicalis*. *Gene Expr. Patterns* 6: 443-447.

## CHROMOSOMAL LOCATION

Genetic locus: FOXJ2 (human) mapping to 12p13.31; Foxj2 (mouse) mapping to 6 F2.

## SOURCE

FOXJ2 (F-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of FOXJ2 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-54374 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

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

## APPLICATIONS

FOXJ2 (F-19) is recommended for detection of FOXJ2 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 FOXJ2 siRNA (h): sc-62337, FOXJ2 siRNA (m): sc-62338, FOXJ2 shRNA Plasmid (h): sc-62337-SH, FOXJ2 shRNA Plasmid (m): sc-62338-SH, FOXJ2 shRNA (h) Lentiviral Particles: sc-62337-V and FOXJ2 shRNA (m) Lentiviral Particles: sc-62338-V.

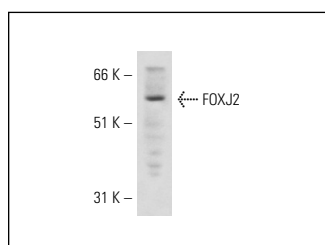
Molecular Weight of FOXJ2: 63 kDa.

Positive Controls: rat uterus extract: sc-364812 or Jurkat whole cell lysate: sc-2204.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



FOXJ2 (F-19): sc-54374. Western blot analysis of FOXJ2 expression in Jurkat nuclear extract.

## STORAGE

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



Try **FOXJ2 (G-9): sc-514265** or **FOXJ2 (11K1): sc-134341**, our highly recommended monoclonal alternatives to FOXJ2 (F-19).