

FOXJ2 (11K1): sc-134341

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 HNF3/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.

SOURCE

FOXJ2 (11K1) is a mouse monoclonal antibody raised against recombinant FOXJ2 protein of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2b} 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.

RESEARCH USE

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

APPLICATIONS

FOXJ2 (11K1) is recommended for detection of FOXJ2 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)] 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 shRNA Plasmid (h): sc-62337-SH and FOXJ2 shRNA (h) Lentiviral Particles: sc-62337-V.

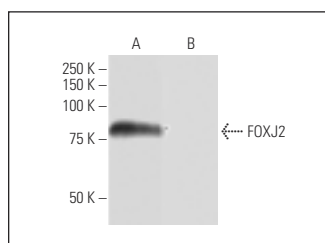
Molecular Weight of FOXJ2: 63 kDa.

Positive Controls: Jurkat nuclear extract: sc-2132 or human FOXJ2 transfected 293T whole cell lysate.

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).

DATA



FOXJ2 (11K1): sc-134341. Western blot analysis of FOXJ2 expression in human FOXJ2 transfected (A) and non-transfected (B) 293T whole cell lysates.

PROTOCOLS

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