SANTA CRUZ BIOTECHNOLOGY, INC.

FOXJ2 (G-9): sc-514265

SANTA CRUZ BIOTECHNOLOGY

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 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 fork head 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 fork-head 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.

CHROMOSOMAL LOCATION

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

SOURCE

FOXJ2 (G-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 272-296 within an internal region of FOXJ2 of human origin.

PRODUCT

Each vial contains 200 µg IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-514265 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

FOXJ2 (G-9) is recommended for detection of FOXJ2 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 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.

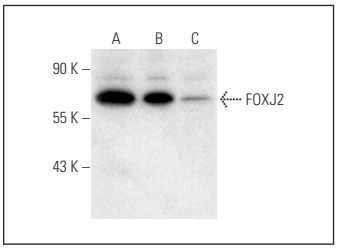
Molecular Weight of FOXJ2: 63 kDa.

Positive Controls: NTERA-2 cl.D1 whole cell lysate: sc-364181, Hs 181 Tes whole cell lysate: sc-364779 or OV-90 whole cell lysate: sc-364191.

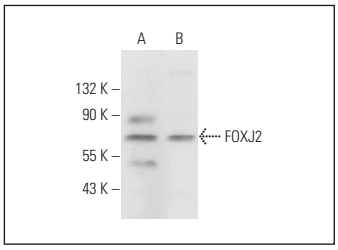
RECOMMENDED SUPPORT REAGENTS

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 L-Agarose: sc-2336 (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.

DATA



FOXJ2 (G-9): sc-514265. Western blot analysis of FOXJ2 expression in NTERA-2 cl.D1 (**A**), Hs 181 Tes (**B**) and OV-90 (**C**) whole cell lysates.



FOXJ2 (G-9): sc-514265. Western blot analysis of FOXJ2 expression in Raji (**A**) and M1 (**B**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Sladitschek, H.L. and Neveu, P.A. 2019. A gene regulatory network controls the balance between mesendoderm and ectoderm at pluripotency exit. Mol. Syst. Biol. 15: e9043.
2. Tan, Y., et al. 2024. H3K4me3-mediated FOXJ2/SLAMF8 axis aggravates thrombosis and inflammation in β2GPI/anti-β2GPI-treated monocytes. Adv. Sci. 11: e2309140.

RESEARCH USE

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