

FOXN1 (H-270): sc-30195

BACKGROUND

The Fox family of transcription factors is a large group of proteins that share a common DNA binding domain termed a winged-helix or forkhead domain. FOXN1, also designated transcription factor winged-nude (WHN), is required for keratinocyte growth, as well as differentiation of epithelial progenitor cells in the thymic primordium into subcapsular, cortical, and medullary epithelial cells of the mature thymus. Mutations in the FOXN1 gene are responsible for nude, immune-deficient mice and rats. These nude mice are useful as hosts for xenografts in cancer research. The promoters for FOXN1 are active in the skin and thymus reflecting the critical role FOXN1 plays in the proper development of these tissues. Secreted Wnt glycoproteins appear to regulate FOXN1 transcription in the thymus. FOXN1 is expressed in the embryonic thymus after the common primordium is formed, beginning at E11.25. FOXN1 is also expressed at very low levels in normal human kidney and thyroid gland. In human, it is also expressed in the differentiating cells of the hair follicle precortex, the innermost layer of the outer root sheath, and the thymus.

REFERENCES

1. Brissette, J.L., et al. 1996. The product of the mouse nude locus, WHN, regulates the balance between epithelial cell growth and differentiation. *Genes Dev.* 10: 2212-2221.
2. Schlake, T., et al. 1997. The nude gene encodes a sequence-specific DNA binding protein with homologs in organisms that lack an anticipatory immune system. *Proc. Natl. Acad. Sci. USA* 94: 3842-3847.
3. Gattenlohner, S., et al. 1999. Transcription of the nude gene (WHN) in human normal organs and mediastinal and pulmonary tumors. *Pathol. Res. Pract.* 195: 571-574.

CHROMOSOMAL LOCATION

Genetic locus: FOXN1 (human) mapping to 17q11.2; Foxn1 (mouse) mapping to 11 B5.

SOURCE

FOXN1 (H-270) is a rabbit polyclonal antibody raised against amino acids 1-270 mapping at the N-terminus of FOXN1 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. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-30195 X, 200 µg/0.1 ml.

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

FOXN1 (H-270) is recommended for detection of FOXN1 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).

FOXN1 (H-270) is also recommended for detection of FOXN1 in additional species, including equine, canine, bovine and porcine.

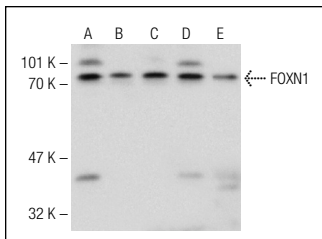
Suitable for use as control antibody for FOXN1 siRNA (h): sc-38611, FOXN1 siRNA (m): sc-38612, FOXN1 shRNA Plasmid (h): sc-38611-SH, FOXN1 shRNA Plasmid (m): sc-38612-SH, FOXN1 shRNA (h) Lentiviral Particles: sc-38611-V and FOXN1 shRNA (m) Lentiviral Particles: sc-38612-V.

FOXN1 (H-270) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of FOXN1: 69 kDa.

Positive Controls: U-87 MG cell lysate: sc-2411, T98G cell lysate: sc-2294 or C6 whole cell lysate: sc-364373.

DATA



FOXN1 (H-270): sc-30195. Western blot analysis of FOXN1 expression in SK-MEL-28 nuclear extract (A) and U-87 MG (B), C6 (C), T98G (D) and MTE1D (E) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Ishigami, T., et al. 2013. The involvement of fibroblast growth factor receptor signaling pathways in dermatofibroma and dermatofibrosarcoma protuberans. *J. Med. Invest.* 60: 106-113.

PROTOCOLS

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