

FOXM1 (H-300): sc-32855

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. FOXM1, also known as FKHL16, MPP2 or Trident, is primarily expressed in proliferating cells. The gene encoding human FOXM1 maps to chromosome 12p13.33. The transcription element that restricts FOXM1 expression to proliferating cells is located 300 bp upstream of the start codon. FOXM1 is most abundant in thymus, testis, small intestine and colon. Alternative splicing generates FOXM1A and FOXM1B isoforms that contain PEST regions involved in rapid protein degradation. A decrease in FOXM1 expression is associated with age-related defects in cellular proliferation. Conversely, an increase in FOXM1B expression in the livers of older transgenic mice restore hepatocyte DNA replication rates to the higher rate present in young livers. FOXM1B activates the transcription of cyclin B1, cyclin D1 and Cdc25B.

CHROMOSOMAL LOCATION

Genetic locus: FOXM1 (human) mapping to 12p13.33; Foxm1 (mouse) mapping to 6 F3.

SOURCE

FOXM1 (H-300) is a rabbit polyclonal antibody raised against amino acids 464-763 mapping at the C-terminus of FOXM1 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.

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-32855 X, 200 µg/0.1 ml.

APPLICATIONS

FOXM1 (H-300) is recommended for detection of all isoforms of FOXM1 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), 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 FOXM1 siRNA (h): sc-43769, FOXM1 siRNA (m): sc-44877, FOXM1 shRNA Plasmid (h): sc-43769-SH, FOXM1 shRNA Plasmid (m): sc-44877-SH, FOXM1 shRNA (h) Lentiviral Particles: sc-43769-V and FOXM1 shRNA (m) Lentiviral Particles: sc-44877-V.

FOXM1 (H-300) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight (predicted) of FOXM1A isoform: 89 kDa.

Molecular Weight (predicted) of FOXM1B isoform: 83 kDa.

Molecular Weight (predicted) of FOXM1C isoform: 84 kDa.

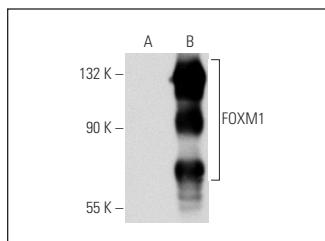
Molecular Weight (observed) of FOXM1: 104-122 kDa.

Positive Controls: FOXM1 (h): 293 Lysate: sc-113096.

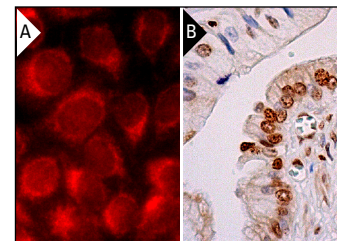
STORAGE

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

DATA



FOXM1 (H-300): sc-32855. Western blot analysis of FOXM1 expression in non-transfected: sc-110760 (A) and human FOXM1 transfected: sc-113096 (B) 293 whole cell lysates.



FOXM1 (H-300): sc-32855. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic and nuclear localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human gall bladder tissue showing nuclear staining of glandular cells (B).

SELECT PRODUCT CITATIONS

- Madureira, P.A., et al. 2006. The forkhead box M1 protein regulates the transcription of the estrogen receptor α in breast cancer cells. *J. Biol. Chem.* 281: 25167-25176.
- Kwok, J.M., et al. 2008. Thiostrepton selectively targets breast cancer cells through inhibition of forkhead box M1 expression. *Mol. Cancer Ther.* 7: 2022-2032.
- Wang, I.C., et al. 2009. Deletion of forkhead box M1 transcription factor from respiratory epithelial cells inhibits pulmonary tumorigenesis. *PLoS ONE* 4: e6609.
- Gayle, S.S., et al. 2013. MEK inhibition increases lapatinib sensitivity via modulation of FOXM1. *Curr. Med. Chem.* 20: 2486-2499.
- Zhang, J., et al. 2015. Polo-like kinase 1-mediated phosphorylation of forkhead box protein M1b antagonizes its SUMOylation and facilitates its mitotic function. *J. Biol. Chem.* 290: 3708-3719.

RESEARCH USE

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

PROTOCOLS

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



Try **FOXM1 (G-5): sc-376471** or **FOXM1 (A-11): sc-271746**, our highly recommended monoclonal alternatives to FOXM1 (H-300). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **FOXM1 (G-5): sc-376471**.