

# FOXM1 (H-92): sc-13016

## 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-92) is a rabbit polyclonal antibody raised against amino acids 502-801 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-13016 X, 200 µg/0.1 ml.

## APPLICATIONS

FOXM1 (H-92) 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).

FOXM1 (H-92) is also recommended for detection of all isoforms of FOXM1 in additional species, including canine.

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-92) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight (predicted) of FOXM1A/FOXM1B isoforms: 89/83 kDa.

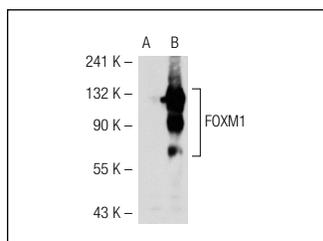
Molecular Weight (predicted) of FOXM1C isoform: 84 kDa.

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

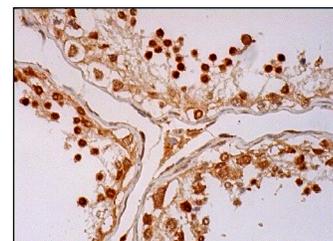
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

## DATA



FOXM1 (H-92): sc-13016. 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-92): sc-13016. Immunoperoxidase staining of formalin fixed, paraffin-embedded human testis tissue showing nuclear and cytoplasmic staining of cells in seminiferous ducts and cytoplasmic staining of Leydig cells.

## SELECT PRODUCT CITATIONS

- Laoukili, J., et al. 2008. Activation of FOXM1 during G<sub>2</sub> requires cyclin A/ Cdk-dependent relief of autorepression by the FOXM1 N-terminal domain. *Mol. Cell. Biol.* 28: 3076-3087.

## 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://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-92). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **FOXM1 (G-5): sc-376471**.