

# VAX1/2 (H-100): sc-98613

## BACKGROUND

The homeobox DNA-binding domain is a 60 amino acid motif that is conserved among many species and functions to bind DNA via a helix-turn-helix structure, thereby playing a role in transcriptional regulation and the control of gene expression. VAX1 (ventral anterior homeobox 1) is a 334 amino acid protein that is required for major tract formation and axon guidance in the developing brain and may play a role in the differentiation of various structures including the optic stalk, the neuroretina and the pigmented epithelium. VAX2 (ventral anterior homeobox 2) is a 290 amino acid homeobox protein that plays a crucial role in development of the eye, particularly in the specification of the ventral optic vesicle and in establishment of a correct dorsoventral pattern. VAX2 acts as a transcription factor with VAX1 to cooperatively regulate retinal differentiation, neuroepithelial cell proliferation and axial polarization in the retina. Together, VAX1 and VAX2 repress transcription of Pax-6, a strong inducer of retinal development. VAX1 and VAX2 localize to the nucleus and contain one homeobox DNA-binding domain each.

## CHROMOSOMAL LOCATION

Genetic locus: VAX1 (human) mapping to 10q25.3, VAX2 (human) mapping to 2p13.3; Vax1 (mouse) mapping to 19 D3, Vax2 (mouse) mapping to 6 C3.

## SOURCE

VAX1/2 (H-100) is a rabbit polyclonal antibody raised against amino acids 61-160 mapping within an internal region of VAX2 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-98613 X, 200 µg/0.1 ml.

## RESEARCH USE

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

## APPLICATIONS

VAX1/2 (H-100) is recommended for detection of VAX1 and VAX2 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).

VAX1/2 (H-100) is also recommended for detection of VAX1 and VAX2 in additional species, including equine and bovine.

VAX1/2 (H-100) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of VAX1: 35 kDa.

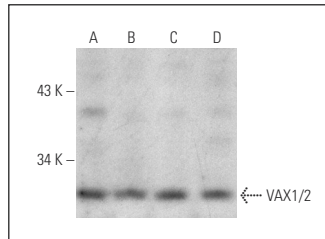
Molecular Weight of VAX2: 31 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, RAW 264.7 whole cell lysate: sc-2211 or NIH/3T3 whole cell lysate: sc-2210.

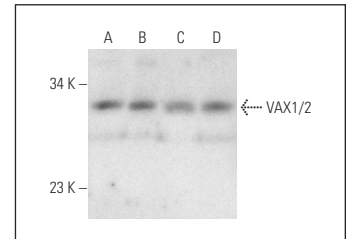
## RECOMMENDED SECONDARY REAGENTS

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.

## DATA



VAX1/2 (H-100): sc-98613. Western blot analysis of VAX1/2 expression in Hep G2 (A), RAW 264.7 (B), NIH/3T3 (C) and NTERA-2 cl.D1 (D) whole cell lysates.



VAX1/2 (H-100): sc-98613. Western blot analysis of VAX1/2 expression in Jurkat (A), A549 (B), C2C12 (C) and HeLa (D) whole cell lysates.

## STORAGE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

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Try **VAX2 (VAX2A8F12): sc-81422**, our highly recommended monoclonal alternative to VAX1/2 (H-100).