

VAX2 (D-12): sc-79337

BACKGROUND

VAX2 (ventral anterior homeobox 2) is a 290 amino acid homeobox protein that is expressed in the ventral portion of the early developing retina. Localized to the nucleus, VAX2 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. Once Pax-6 is repressed, retinal differentiation slows, thus allowing for proper development of the optic nerve. VAX2 contains one homeobox DNA-binding domain and belongs to the EMX homeobox family of proteins.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: VAX2 (human) mapping to 2p13.3; Vax2 (mouse) mapping to 6 C3.

SOURCE

VAX2 (D-12) is an affinity purified goat polyclonal antibody raised against a peptide 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.

Blocking peptide available for competition studies, sc-79337 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-79337 X, 200 µg/0.1 ml.

APPLICATIONS

VAX2 (D-12) is recommended for detection of VAX2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

VAX2 (D-12) is also recommended for detection of VAX2 in additional species, including porcine.

Suitable for use as control antibody for VAX2 siRNA (h): sc-76891, VAX2 siRNA (m): sc-76892, VAX2 shRNA Plasmid (h): sc-76891-SH, VAX2 shRNA Plasmid (m): sc-76892-SH, VAX2 shRNA (h) Lentiviral Particles: sc-76891-V and VAX2 shRNA (m) Lentiviral Particles: sc-76892-V.

VAX2 (D-12) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of VAX2: 31 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 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 donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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 or our catalog for detailed protocols and support products.