

Pax-2/6 (N-19): sc-7751

BACKGROUND

Pax genes contain paired domains with strong homology to genes in *Drosophila* which are involved in programming early development. The PAX2 gene is expressed in primitive cells of the kidney, ureter, eye, ear, and central nervous system. More specifically, in human embryo sections, PAX2 is expressed in the optic vesicle and later in the retina, in the otic vesicle and later in the semicircular canals of the inner ear, and in mesonephros, metanephros, adrenals, spinal cord, and hindbrain. PAX2 mutations can be responsible for renal hypoplasia, either isolated or associated with various ophthalmologic manifestations ranging from retinal coloboma to microphthalmia. The gene which encodes Pax-2 maps to human chromosome 10q24.31. Lesions in the PAX6 gene accounts for most cases of aniridia, a congenital malformation of the eye, chiefly characterized by iris hypoplasia, which can cause blindness. PAX6 is involved in other anterior segment malformations besides aniridia, such as Peters anomaly, a major error in the embryonic development of the eye with corneal clouding with variable iridolenticulocorneal adhesions. The gene which encodes Pax-6 maps to human chromosome 11p13.

CHROMOSOMAL LOCATION

Genetic locus: PAX2 (human) mapping to 10q24.31, PAX6 (human) mapping to 11p13; Pax2 (mouse) mapping to 19 C3, Pax6 (mouse) mapping to 2 E3.

SOURCE

Pax-2/6 (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Pax-6 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-7751 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-7751 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Pax-2/6 (N-19) is recommended for detection of Pax-2 and Pax-6 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).

Pax-2/6 (N-19) is also recommended for detection of Pax-2 and Pax-6 in additional species, including equine, canine, bovine, porcine and avian.

Pax-2/6 (N-19) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of Pax-2: 42 kDa.

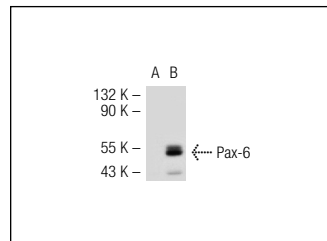
Molecular Weight of Pax-6: 50 kDa.

Positive Controls: Pax-6 (m): 293T Lysate: sc-127299, Pax-6 (h3): 293T Lysate: sc-176117 or KNRK whole cell lysate: sc-2214.

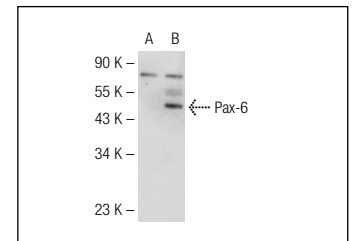
RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



Pax-2/6 (N-19): sc-7751. Western blot analysis of Pax-6 expression in non-transfected: sc-117752 (A) and mouse Pax-6 transfected: sc-127299 (B) 293T whole cell lysates.



Pax-2/6 (N-19): sc-7751. Western blot analysis of Pax-6 expression in non-transfected: sc-117752 (A) and human Pax-6 transfected: sc-176117 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Kovacevic-Grujicic, N., et al. 2013. Cyclic AMP response element binding (CREB) protein acts as a positive regulator of SOX3 gene expression in NT2/D1 cells. *BMB Rep.* 47: 197-202.

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.

MONOS
Satisfaction
Guaranteed

Try **Pax (D-7): sc-514352**, our highly recommended monoclonal alternative to Pax-2/6 (N-19). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **Pax (D-7): sc-514352**.