

Pax-2 (B-24): sc-133889

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 semi-circular 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. Lesions in the PAX6 gene account 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.

REFERENCES

1. Ferrell, R.E., et al. 1980. Autosomal dominant aniridia: probable linkage to acid phosphatase-1 locus on chromosome 2. Proc. Natl. Acad. Sci. USA 77: 1580-1582.
2. Hanson, I.M., et al. 1993. PAX6 mutations in aniridia. Hum. Mol. Genet. 2: 915-920.

CHROMOSOMAL LOCATION

Genetic locus: PAX2 (human) mapping to 10q24.31.

SOURCE

Pax-2 (B-24) is an affinity purified rabbit polyclonal antibody raised against synthetic Pax-2 peptide of human origin.

PRODUCT

Each vial contains 50 μ g IgG in 500 μ l PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

APPLICATIONS

Pax-2 (B-24) is recommended for detection of Pax-2 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 Pax-2 siRNA (h): sc-38745, Pax-2 shRNA Plasmid (h): sc-38745-SH and Pax-2 shRNA (h) Lentiviral Particles: sc-38745-V.

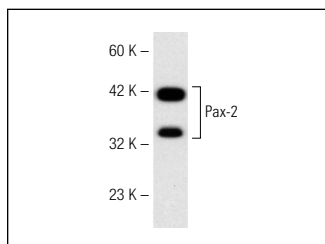
Molecular Weight of Pax-2: 42 kDa.

Positive Controls: NAMALWA cell lysate: sc-2234 or human fetal kidney tissue extract.

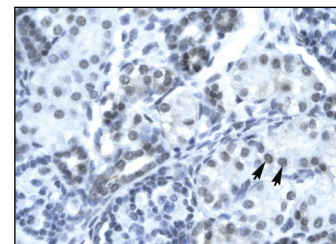
RECOMMENDED SECONDARY REAGENTS

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



Pax-2 (B-24): sc-133889. Western blot analysis of Pax-2 expression in human fetal kidney tissue extract.



Pax-2 (B-24): sc-133889. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human kidney tissue showing nuclear localization.

SELECT PRODUCT CITATIONS

1. Gilfillan, S., et al. 2012. Functional genomic methods to study estrogen receptor activity. J. Mammary Gland Biol. Neoplasia 17: 147-153.

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-2 (60-P): sc-130387**, our highly recommended monoclonal alternative to Pax-2 (B-24).