

## Pax-2/5/8 (F-19): sc-7752

### 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 10q24.3-q25.1. 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.

### SOURCE

Pax-2/5/8 (F-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Pax-8 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-7752 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-7752 X, 200 µg/0.1 ml.

### APPLICATIONS

Pax-2/5/8 (F-19) is recommended for detection of Pax-2, Pax-5, and Pax-8 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-2/5/8 (F-19) is also recommended for detection of Pax-2, Pax-5, and Pax-8 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Pax-2/5/8 siRNA (h): sc-43996, Pax-2/5/8 shRNA Plasmid (h): sc-43996-SH and Pax-2/5/8 shRNA (h) Lentiviral Particles: sc-43996-V.

Pax-2/5/8 (F-19) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

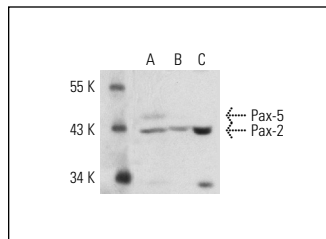
Molecular Weight of Pax-2/Pax-5/Pax-8: 42/46/62 kDa.

Positive Controls: KNRK nuclear extract: sc-2141, WEHI-231 whole cell lysate: sc-2213 or NAMALWA cell lysate: sc-2234.

### STORAGE

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

### DATA



Pax-2/5/8 (F-19): sc-7752. Western blot analysis of Pax-2 and Pax-5 expression in NAMALWA (A) and WEHI-231 (B) whole cell lysates and KNRK nuclear extract (C).

### SELECT PRODUCT CITATIONS

- Gattenlohner, S., et al. 2003. NCAM (CD56) and RUNX1 (AML1) are up-regulated in human ischemic cardiomyopathy and a rat model of chronic cardiac ischemia. *Am. J. Pathol.* 163: 1081-1090.
- Costamagna, E., et al. 2004. The functional interaction between the paired-domain transcription factor Pax-8 and Smad3 is involved in the TGFβ repression of the sodium iodide symporter gene. *J. Biol. Chem.* 279: 3439-3446.
- Velez, M.L., et al. 2006. Bacterial lipopolysaccharide stimulates the thyrotropin-dependent thyroglobulin gene expression at the transcriptional level by involving the transcription factors thyroid transcription factor-1 and paired box domain transcription factor 8. *Endocrinology* 147: 3260-3275.
- Bao, J., et al. 2008. R2: identification of renal potential progenitor/stem cells that participate in the renal regeneration processes of kidney allograft fibrosis. *Nephrology* 13: 500-507.

### 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.

**MONOS**  
Satisfaction  
Guaranteed

Try **Pax-2/5/8 (G-3): sc-377181**, our highly recommended monoclonal alternative to Pax-2/5/8 (F-19).