SANTA CRUZ BIOTECHNOLOGY, INC.

Pax (H-150): sc-25408

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The Pax gene family of nuclear transcription factors is comprised of nine family members that function during embryogenesis to regulate the temporal and position-dependent differentiation of cells. In addition, the family is involved in a variety of signal transduction pathways in the adult organism. Mutations in the Pax family of proteins have been linked to disease and cancer in humans. Pax genes contain paired domains with strong homology to genes in *Drosophila* which are involved in programming early development.

REFERENCES

1. Deutsch, U., et al. 1988. Pax 1, a member of a paired box homologous murine gene family, is expressed in segmented structures during development. Cell 53: 617-625.
2. Goulding, M.D., et al. 1991. Pax-3, a novel murine DNA binding protein expressed during early neurogenesis. EMBO J. 10: 1135-1147.
3. Adams, B., et al. 1992. Pax-5 encodes the transcription factor BSAP and is expressed in B lymphocytes, the developing CNS, and adult testis. Genes Dev. 6: 1589-1607.
4. Stapleton, P., et al. 1993. Chromosomal localization of seven PAX genes and cloning of a novel family member, PAX-9. Nat. Genet. 3: 292-298.
5. Hanson, I.M., et al. 1994. Mutations at the PAX6 locus are found in heterogeneous anterior segment malformations including Peters' anomaly. Nat. Genet. 6: 168-173.
6. Poleev, A., et al. 1995. Distinct functional properties of three human paired-box-protein, PAX8, isoforms generated by alternative splicing in thyroid, kidney and Wilms' tumors. Eur. J. Biochem. 228: 899-911.
7. Seale, P., et al. 2000. Pax7 is required for the specification of myogenic satellite cells. Cell 102: 777-786.
8. Tellier, A.L., et al. 2000. Expression of the PAX2 gene in human embryos and exclusion in the CHARGE syndrome. Am. J. Med. Genet. 93: 85-88.

SOURCE

Pax (H-150) is a rabbit polyclonal antibody raised against amino acids 72-150 of Pax-2 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-25408 X, 200 µg/0.1 ml.

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 or our catalog for detailed protocols and support products.

APPLICATIONS

Pax (H-150) is recommended for detection of Pax-1-3 and Pax-5-9 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 (H-150) is also recommended for detection of Pax-1-3 and Pax-5-9 in additional species, including equine, canine, bovine, porcine and avian.

Pax (H-150) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

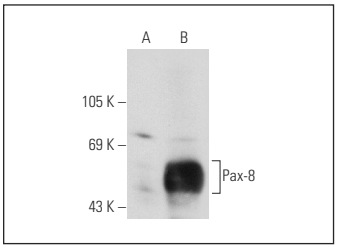
Molecular Weight of Pax: 44-50 kDa.

Positive Controls: NAMALWA cell lysate: sc-2234 or Pax-8 (m): 293T Lysate: sc-127301.

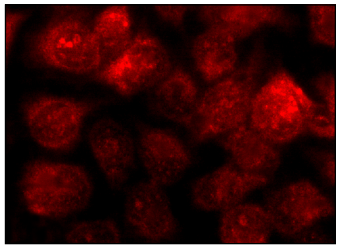
RECOMMENDED SECONDARY REAGENTS

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



Pax (H-150): sc-25408. Western blot analysis of Pax-8 expression in non-transfected: sc-117752 (**A**) and mouse Pax-8 transfected: sc-127301 (**B**) 293T whole cell lysates.



Pax (H-150): sc-25408. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic and nuclear localization.

RESEARCH USE

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

MONOS Satisfaction Guaranteed

Try **Pax (D-7): sc-514352**, our highly recommended monoclonal alternative to Pax (H-150). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **Pax (D-7): sc-514352**.