

Pax-5 (C-20): sc-1974

BACKGROUND

The Pax family of nuclear transcription factors is comprised of nine members that function during embryogenesis to regulate the temporal and position-dependent differentiation of cells. Pax family genes are also involved in a variety of signal transduction pathways in the adult organism. Mutations in Pax proteins have been linked to disease and cancer in humans. For example, the human PAX5 gene encodes a B cell lineage-specific protein, Pax-5, also designated B cell specific activator protein or BSAP, which is expressed in pre-B, pre-B and mature B lymphocytes but not in plasma cells. Pax-5 functions to regulate not only B cell development, but also influences the balance between immunoglobulin secretion and B cell proliferation. Overexpression of Pax-5 has been implicated in cellular transformation, and in the case of small lymphocytic lymphomas with plasmacytoid differentiation, a t(9;14)(p13;q32) translocation resulting in the deregulation of PAX5 gene expression has been detected.

REFERENCES

- 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.
- 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.

CHROMOSOMAL LOCATION

Genetic locus: PAX5 (human) mapping to 9p13.2; Pax5 (mouse) mapping to 4 B1.

SOURCE

Pax-5 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Pax-5 of human origin.

PRODUCT

Each vial contains 100 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-1974 X, 200 µg/0.1 ml.

Pax-5 (C-20) is available conjugated to HRP (sc-1974 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; and to either fluorescein (sc-1974 FITC, 200 µg/ml), Alexa Fluor® 488 (sc-1974 AF488, 200 µg/ml) or Alexa Fluor® 647 (sc-1974 AF647, 200 µg/ml), for IF, IHC(P) and FCM.

In addition, Pax-5 (C-20) is available conjugated to either TRITC (sc-1974 TRITC, 200 µg/ml) or Alexa Fluor® 405 (sc-1974 AF405), 100 µg/2 ml, for IF, IHC(P) and FCM.

Blocking peptide available for competition studies, sc-1974 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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.

APPLICATIONS

Pax-5 (C-20) is recommended for detection of Pax-5 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), 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).

Pax-5 (C-20) is also recommended for detection of Pax-5 in additional species, including equine, canine and porcine.

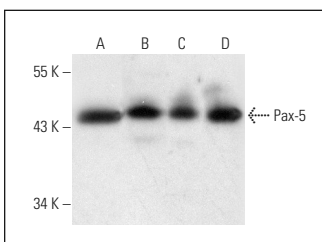
Suitable for use as control antibody for Pax-5 siRNA (h): sc-36193, Pax-5 siRNA (m): sc-36194, Pax-5 shRNA Plasmid (h): sc-36193-SH, Pax-5 shRNA Plasmid (m): sc-36194-SH, Pax-5 shRNA (h) Lentiviral Particles: sc-36193-V and Pax-5 shRNA (m) Lentiviral Particles: sc-36194-V.

Pax-5 (C-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

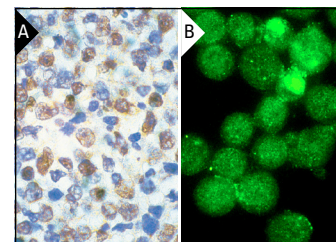
Molecular Weight of Pax-5: 46 kDa.

Positive Controls: Raji whole cell lysate: sc-364236, Ramos cell lysate: sc-2216 or WEHI-231 whole cell lysate: sc-2213.

DATA



Pax-5 (C-20): sc-1974. Western blot analysis of Pax-5 expression in WEHI-231 nuclear extract (A) and Ramos (B), Raji (C) and WEHI-231 (D) whole cell lysates.



Pax-5 (C-20): sc-1974. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human tonsil (A). Immunofluorescence staining of methanol-fixed NAMALWA cells showing nuclear localization (B).

SELECT PRODUCT CITATIONS

- Roberts, E.C., et al. 2001. Id helix-loop-helix proteins antagonize Pax transcription factor activity by inhibiting DNA binding. *Mol. Cell. Biol.* 21: 524-533.
- Sato, H., et al. 2001. Dissociation of Pax-5 from KI and KII sites during κ -chain gene rearrangement correlates with its association with the underphosphorylated form of retinoblastoma. *J. Immunol.* 166: 6704-6710.

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Try **Pax-5 (A-11): sc-13146** or **Pax-5 (E-9): sc-55515**, our highly recommended monoclonal alternatives to Pax-5 (C-20). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **Pax-5 (A-11): sc-13146**.