SANTA CRUZ BIOTECHNOLOGY, INC.

Pax-3 (F-2): sc-376204



BACKGROUND

Pax genes contain paired domains that share strong homology to genes in *Drosophila* which are involved in programming early development. The product of the PAX3 gene is a DNA-binding protein expressed during early neurogenesis. Pax-3 is a protein containing both a paired domain and a paired-type homeodomain. During early neurogenesis, Pax-3 expression is limited to mitotic cells in the ventricular zone of the developing spinal cord and to distinct regions in the hindbrain, midbrain and diencephalon. In 10-12 day embryos, expression of Pax-3 is also seen in neural crest cells of the developing spinal ganglia, the craniofacial mesectoderm and in limb mesenchyme. Mutations in the MITF and Pax-3 genes, encoding transcription factors, are responsible for Waardenburg syndrome II (WSII) and WSI/WSIII, respectively.

REFERENCES

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- 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.
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- Watanabe, A., et al. 1998. Epistatic relationship between Waardenburg syndrome genes MITF and Pax-3. Nat. Genet. 18: 283-286.
- Wachtel, M., et al. 2004. Gene expression signatures identify rhabdomyo-sarcoma subtypes and detect a novel t(2;2)(q35;p23) translocation fusing Pax-3 to NCoA-1. Cancer Res. 64: 5539-5545.

CHROMOSOMAL LOCATION

Genetic locus: PAX3 (human) mapping to 2q36.1; Pax3 (mouse) mapping to 1 C4.

SOURCE

Pax-3 (F-2) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 387-425 near the C-terminus of Pax-3 of human origin.

PRODUCT

Each vial contains 200 μ g lgG₃ 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-376204 X, 200 μ g/0.1 ml.

Blocking peptide available for competition studies, sc-376204 P, (100 μg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

Pax-3 (F-2) is recommended for detection of Pax-3 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Pax-3 (F-2) is also recommended for detection of Pax-3 in additional species, including equine, bovine, porcine and avian.

Suitable for use as control antibody for Pax-3 siRNA (h): sc-38747, Pax-3 siRNA (m): sc-38748, Pax-3 shRNA Plasmid (h): sc-38747-SH, Pax-3 shRNA Plasmid (m): sc-38748-SH, Pax-3 shRNA (h) Lentiviral Particles: sc-38747-V and Pax-3 shRNA (m) Lentiviral Particles: sc-38748-V.

Pax-3 (F-2) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of Pax-3: 56 kDa.

Positive Controls: Pax-3 (m): 293T Lysate: sc-122398.

DATA



Pax-3 (F-2): sc-376204. Western blot analysis of Pax-3 expression in non-transfected: sc-117752 (**A**) and mouse Pax-3 transfected: sc-122398 (**B**) 293T whole cell lysates.

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 for detailed protocols and support products.



See **Pax-3/7 (B-5): sc-365843** for Pax-3/7 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor[®] 488, 546, 594, 647, 680 and 790.