

# ZYMED® Laboratories

invitrogen immunodetection

Qty: 100 µL

Rabbit anti-Pax3

Catalog No. 38-1801

Lot No.

## Rabbit anti-Pax3

### FORM

This polyclonal antibody is supplied as a 100 µL aliquot of neat antiserum containing 0.1% sodium azide.

PAD: ZMD.347

### IMMUNOGEN

His6-tagged recombinant protein derived from a portion of the N-terminus of the mouse Pax3 sequence, encompassing the paired box and homeobox domains

### SPECIFICITY

This antibody recognizes the ~53 kDa Pax3 protein in Pax3-MSCV transduced NIH-3T3 cell lysates on a Western blot assay. An untransduced NIH-3T3 cell line did not exhibit the target ~53 kDa band. However, a strong non-specific band at ~70 kDa as well as several other faint bands were observed in both the positive and negative control cell lines.

### REACTIVITY

Reactivity has been confirmed with Pax3-MSCV transduced NIH-3T3 cell lysates in a Western blot assay. Based on amino acid sequence homology, this antibody is also expected to react with human and chicken Pax3. This antibody has also been used in immunofluorescence assays using Pax3-FKHR infected NIH-3T3 cells that were fixed in 2% paraformaldehyde and permeabilized in 2% paraformaldehyde containing 1% Triton X-100.<sup>5</sup>

Sample	Western Blotting	Immuno-precipitation <sup>5</sup>	Immunofluorescence <sup>5-6</sup>	Immunohistochemistry (frozen and FFPE) <sup>7</sup>
Mouse	++	++	++	++
Human	ND	ND	ND	ND

(Excellent +++, Good++, Poor +, No reactivity 0, Not applicable N/A, Not Determined ND)

### USAGE

Working concentrations for specific applications should be determined by the investigator. Appropriate concentrations will be affected by several factors, including secondary antibody affinity, antigen concentration, sensitivity of detection method, temperature and length of incubations, etc. The suitability of this antibody for applications other than those listed below has not been determined. The following concentration ranges are recommended starting points for this product.

**Western Blotting:** 1:100-1:500  
**Immunoprecipitation<sup>5</sup>:** 1:100-1:500  
**Immunofluorescence<sup>5-6</sup>:** 1:100-1:500  
**Immunohistochemistry<sup>7</sup>:** 1:100-1:500

**NOTE:** For more information on use of this antibody in immunoprecipitation and immunofluorescence applications, please see references 5 and 6. For optimal results in immunohistochemistry using formalin-fixed, paraffin-embedded mouse tissue sections, heat induced epitope retrieval (HIER) using citrate buffer, pH 6.0 for 10 minutes is required.<sup>7</sup>

### STORAGE

Store at 2-8°C for up to one month. Store at -20°C for long-term storage. Avoid repeated freezing and thawing.

(cont'd)

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Rev. 11/06

DCC-06-0084

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**BACKGROUND**

Pax3 is a transcription factor that is required by pre-migratory neural crest cells that give rise to the peripheral nervous system, melanocytes, some vascular smooth muscle, and numerous other derivatives, and is localized in the dorsal neural tube, and in myogenic progenitors in the presomitic mesoderm and the hypaxial somites.<sup>1</sup>

Repressors of Pax3 transcriptional activity include the transcriptional co-repressor hDaxx, the retinoblastoma protein (Rb) and Calmyrin. The Pax3-FKHR fusion protein is formed due to chromosomal translocation and induces morphological change and enhances cellular proliferation and invasion in alveolar rhabdomyosarcoma (ARMS) development.<sup>2</sup>

Pax3 mutations help cause Waardenburg Syndrome, which is an auditory-pigmentary syndrome caused by a deficiency of melanocytes and other neural crest-derived cells.<sup>3</sup> Pax3 is also involved in the development and progression of malignant melanoma.<sup>4</sup>

**REFERENCES**

1. Milewski RC, et al. *Development* 131(4): 829-37, 2004.
2. Anderson J, et al. *Am J Pathol* 159(3): 1089-96, 2001.
3. Tachibana M, et al. *Pigment Cell Res* 16(5): 448-54, 2003.
4. Poser I and Bosserhoff AK. *Histol Histopathol* 19(1): 173-88, 2004.
5. Lam PYP, et al. *Mol Cell Biol* 19(1): 594-601, 1999.
6. Hollenbach AD, et al. *Biochim Biophys Acta* 1574(3): 321-8, 2002.
7. Lagutina I, et al. *Mol Cell Biol* 22(20): 7204-7216, 2002.

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