

## Pax-3/7 (C-20): sc-7748

### 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 Pax-3 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 (WS2) and WS1/WS3, respectively. Pax-7 is a gene specifically expressed in cultured satellite cell-derived myoblasts. *In situ* hybridization revealed that Pax-7 is also expressed in satellite cells residing in adult muscle. The gene which encodes Pax-7 maps to human chromosome 1p36.13.

### CHROMOSOMAL LOCATION

Genetic locus: PAX3 (human) mapping to 2q36.1, PAX7 (human) mapping to 1p36.13; Pax3 (mouse) mapping to 1 C4, Pax7 (mouse) mapping to 4 D3.

### SOURCE

Pax-3/7 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Pax-3 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. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-7748 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-7748 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

Pax-3/7 (C-20) is recommended for detection of Pax-3 and Pax-7 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-3/7 (C-20) is also recommended for detection of Pax-3 and Pax-7 in additional species, including equine, canine, bovine, porcine and avian.

Pax-3/7 (C-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of Pax-3/7: 56 kDa.

Positive Controls: Pax-3 (m): 293T Lysate: sc-122398 or C32 nuclear extract: sc-2136.

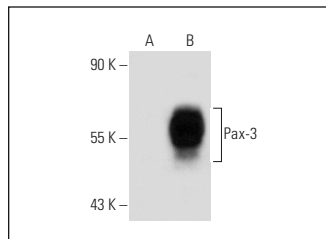
### RESEARCH USE

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

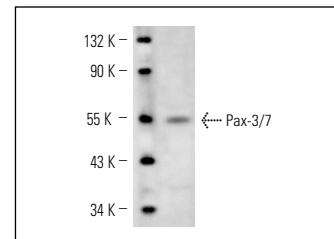
### STORAGE

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

### DATA



Pax-3/7 (C-20): sc-7748. 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.



Pax-3/7 (C-20): sc-7748. Western blot analysis of Pax-3/7 expression in C32 nuclear extract.

### SELECT PRODUCT CITATIONS

- Gattenlöhner, 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.
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- Ebauer, M., et al. 2007. Comparative expression profiling identifies an *in vivo* target gene signature with TFAP2B as a mediator of the survival function of Pax-3/FKHR. *Oncogene* 26: 7267-7271.
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Try **Pax-3/7 (B-5): sc-365843** or **Pax-3/7 (E-10): sc-365613**, our highly recommended monoclonal alternatives to Pax-3/7 (C-20). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **Pax-3/7 (B-5): sc-365843**.