

## DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Human                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | Detects human Pax7 in direct ELISAs and Western blots. In direct ELISAs, approximately 50% cross-reactivity with recombinant human (rh) Pax3 is observed and approximately 4% cross-reactivity with rhPax1 and rhPax6 is observed.                                          |
| <b>Source</b>             | Polyclonal Goat IgG                                                                                                                                                                                                                                                         |
| <b>Purification</b>       | Antigen Affinity-purified                                                                                                                                                                                                                                                   |
| <b>Immunogen</b>          | <i>E. coli</i> -derived recombinant human Pax7<br>Met1-Gly196<br>Accession # P23759                                                                                                                                                                                         |
| <b>Conjugate</b>          | Alexa Fluor 594<br>Excitation Wavelength: 590 nm<br>Emission Wavelength: 617 nm                                                                                                                                                                                             |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |

## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

|                            |                                                                        |
|----------------------------|------------------------------------------------------------------------|
| <b>Western Blot</b>        | Optimal dilution of this antibody should be experimentally determined. |
| <b>Immunocytochemistry</b> | Optimal dilution of this antibody should be experimentally determined. |

## PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

## BACKGROUND

PAX7 (Paired box 7A; also HuP1) is a 57 kDa member of the paired homeobox family of transcription factors. It is expressed in select neurons (in rodent) and skeletal muscle satellite cells, where, in the latter, it promotes both a muscle stem cell state (PAX7+ desmin- cells) and a lineage commitment state (PAX7+ desmin+ cells). PAX7 forms heterodimers with PAX3, and interacts with the regulatory regions of the Myf5 locus. Human PAX7(A) is 520 amino acids (aa) in length. It contains an N-terminal paired box DNA-binding domain (aa 34-163), a homeodomain (aa 218-275) and a C-terminal poly-alanine region (aa 340-346). Multiple splice forms of PAX7 exist. There is a 54 kDa isoform B that contains a 38 aa substitution for aa 468-520, plus a second isoform that shows a deletion of Gly151 and Leu152. There is also a chromosomal rearrangement that fuses aa 30-385 of PAX7 to aa 211-265 of FOXO1A/FKHR. Over aa 1-196, human PAX7 shares 86% and 96% aa identity with human PAX3 and mouse PAX7, respectively.

## PRODUCT SPECIFIC NOTICES

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