

## DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Human                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | Detects human NKX3.1 in direct ELISAs and Western blots. In direct ELISAs, less than 1% cross-reactivity with recombinant human (rh) NKX2.2, rhNKX6.1, and rhBAP31 is observed.                                                                                             |
| <b>Source</b>             | Polyclonal Goat IgG                                                                                                                                                                                                                                                         |
| <b>Purification</b>       | Antigen Affinity-purified                                                                                                                                                                                                                                                   |
| <b>Immunogen</b>          | <i>E. coli</i> -derived recombinant human NKX3.1<br>Met1-Pro123<br>Accession # Q99801                                                                                                                                                                                       |
| <b>Conjugate</b>          | Alexa Fluor 750<br>Excitation Wavelength: 749 nm<br>Emission Wavelength: 775 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

NKX3.1 (Homeobox protein NK-3 homolog A) is a 32-38 kDa member of the NK-3 homeobox family of transcription factors. It is expressed in testis and prostatic epithelium, and appears to be regulated by both testosterone and estrogen (but not progesterone). NKX3.1 apparently promotes prostate gland development, and acts as a tumor suppressor/transcriptional repressor by interacting with HDAC-1 and increasing p53 acetylation and half-life. Human NKX3.1 is 234 amino acids (aa) in length. It contains a DNA binding homeodomain (aa 124-183) and phosphorylation sites at Ser185 and Ser196 that regulate protein turnover. There are four splice variants that show changes N-terminal to the homeobox domain. Deletions of aa 8-56, 13-87, 15-83 and 40-83 are all reported. Over aa 1-123, human NKX3.1 shares 50% aa identity with mouse NKX3.1.

## PRODUCT SPECIFIC NOTICES

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