

## DESCRIPTION

|                                                                                                                                                                                                         |                                                                                       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| <b>Species Reactivity</b>                                                                                                                                                                               | Human                                                                                 |
| <b>Specificity</b>                                                                                                                                                                                      | Detects endogenous human PYK2 in Western blots.                                       |
| <b>Source</b>                                                                                                                                                                                           | Polyclonal Sheep IgG                                                                  |
| <b>Purification</b>                                                                                                                                                                                     | Antigen Affinity-purified                                                             |
| <b>Immunogen</b>                                                                                                                                                                                        | <i>E. coli</i> -derived recombinant human PYK2<br>Asn221-Arg411<br>Accession # Q14289 |
| <b>Conjugate</b>                                                                                                                                                                                        | Alexa Fluor 700<br>Excitation Wavelength: 675-700 nm<br>Emission Wavelength: 723 nm   |
| <b>Formulation</b>                                                                                                                                                                                      | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide                          |
| *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>Immunohistochemistry</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

PYK2 (Proline-rich tyrosine kinase 2; also FAK2, RAFTK and CAKβ) is a 112-116 kDa member of the FAK subfamily, tyrosine protein kinase family. It is expressed in multiple cell types, including endothelial cells, vascular smooth muscle cells, megakaryocytes and neurons. PYK2 is activated by elevated intracellular Ca<sup>++</sup> and is associated with MAPK pathway activation. Human PYK2 is 1009 amino acids (aa) in length. It contains one FERM domain that binds to growth factor receptors (aa 39-359), a protein kinase domain (aa 425-683), two Pro-rich segments that bind SH domains (aa 702-767 and 831-869), and one FAT region that interacts with integrins (aa 868-1009). Phosphorylation of PYK2 at Tyr402/579/580 is associated with changes in activity. There is one splice variant that shows a deletion of aa 739-780.

## PRODUCT SPECIFIC NOTICES

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