

# Pyk2 [pY402] Rabbit Recombinant Oligoclonal Antibody – Purified



Catalog no. 710087

(See product label for lot information)

**Clone/PAD:** 17HCLC  
**Isotype:** IgG  
**Gene ID:** 2185  
**Protein Acc. no.:** Q14289  
**Qty:** 100 µg  
**Volume:** 200 µl  
**Concentration:** 0.5 mg/mL

## Formulation

Phosphate buffered saline (PBS) with 0.09% sodium azide.

## Application

For use in Western Blotting and ELISA.

## Reactivity

This antibody is specific for pY402 and does not recognize non-phosphorylated Pyk2 protein.

## Immunogen

Peptide

## Immunogen sequence

ESDI[pY]AEIPDETL

## Sequence Identity

Human

## Sequence Homology

Mouse

## Expected Reactivity

Based on sequence identity and similarity, reactivity to Human and Mouse are predicted.

## Storage

2-8°C for up to 1 month, -20°C for long term storage. Avoid repeated freezing and thawing.

## Expiration Date

Expires one year from date of receipt when stored as instructed.

## Background

PyK2 is also known as protein tyrosine kinase, is known to be expressed in the central nervous system and from cells derived from hematopoietic lineages (1, 2). In response to various stimuli that increase the intracellular calcium concentration, PyK2 gets rapidly phosphorylated on the tyrosine residues. On activation of the Pyk2 protein, the MAP kinase signaling pathway is activated and its activation brings about modulation of the ion channel function (1). The phosphorylation of tyrosin is brought about by reactions involving protein tyrosine phosphatases (PTPs) and tyrosine kinases and this is very important for various physiological processes, including cell growth, differentiation, metabolism, cell cycle regulation and cytoskeleton function (2). The PTK focal adhesion family consists of the FAK (focal adhesion kinase) and the RAFT/Pyk2 kinase proteins (also known as CAK-beta and CADTK) (3)

## References

- 1) Lev S, Moreno H, Martinez R, Canoll P, Peles E, Musacchio JM, Plowman GD, Rudy B, Schlessinger J.1995. Protein tyrosine kinase PYK2 involved in Ca(2+)-induced regulation of ion channel and MAP kinase functions. *Nature*. (6543):737-45.
- 2) Avraham H, Park SY, Schinkmann K, Avraham S.2000. RAFTK/Pyk2-mediated cellular signalling. *Cell Signalling*. pp123-33.
- 3) Sasaki H, Nagura K, Ishino M, Tobioka H, Kotani K, Sasaki T.1995. Cloning and characterization of cell adhesion kinase beta, a novel protein-tyrosine kinase of the focal adhesion kinase subfamily. *Journal of Biological Chemistry*.pp21206-19.

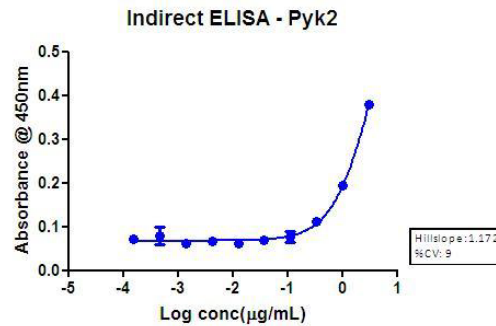
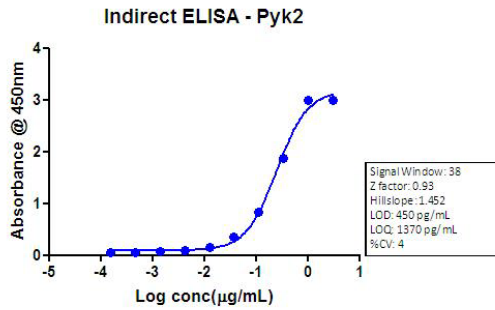
## Applications:

|                         | Species | Test Material   | Concentration                  |
|-------------------------|---------|-----------------|--------------------------------|
| <b>Western Blotting</b> | Human   | A431            | 4 - 5 µg/ml                    |
| <b>Indirect ELISA</b>   | Human   | Phospho-peptide | 4.7x10 <sup>-5</sup> - 1 µg/ml |

**For Research Use Only. CAUTION: Not for human or animal therapeutic or diagnostic use.**

[www.invitrogen.com](http://www.invitrogen.com)

Invitrogen Corporation • 7335 Executive Way • Frederick • MD 21704 • Tel: 800.955.6288 • E-mail: [techsupport@invitrogen.com](mailto:techsupport@invitrogen.com)

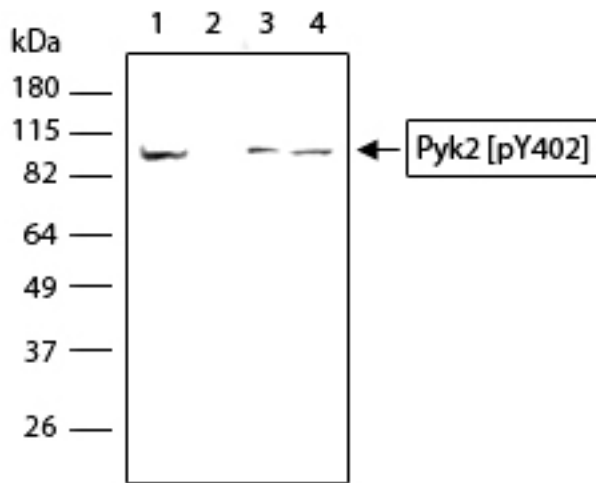


**Indirect ELISA of Pyk2 [pY402] Rabbit Recombinant Oligoclonal Antibody (Cat. No.710087).**

Indirect ELISA was done using Pyk2 [pY402] Rabbit Recombinant Oligoclonal Antibody to detect phospho peptide (100ng/well), using TMB (Cat. No. SB01) as substrate.

**Indirect ELISA of Pyk2 [pY402] Rabbit Recombinant Oligoclonal Antibody (Cat. No.710087).**

Indirect ELISA was done using Pyk2 [pY402] Rabbit Recombinant Oligoclonal Antibody to detect non-phospho peptide (100ng/well), using TMB (Cat. No. SB01) as substrate.



**Western Blot analysis of Pyk2 [pY402] Rabbit Recombinant Oligoclonal Antibody (Cat. No.710087).**














Whole cell extract; 50µg per lane from A431 (lane 1), Ab pre-incubated with the phospho-peptide - 0.5µg (lane 2), Jurkat treated with PMA - 5ng/mL for 5min (lane 3), Raji (lane 4) were loaded on SDS-PAGE followed by transfer on to nitrocellulose. The blot was blocked followed by incubation with Pyk2 [pY402] Rabbit Recombinant Oligoclonal Antibody at 5µg/mL, overnight at 4°C. Goat Anti Rabbit - HRP conjugated, was used at 1:5000 dilution as secondary antibody and developed by chemiluminescence (ECL) method.

**For Research Use Only. CAUTION: Not for human or animal therapeutic or diagnostic use.**

[www.invitrogen.com](http://www.invitrogen.com)

Invitrogen Corporation • 7335 Executive Way • Frederick • MD 21704 • Tel: 800.955.6288 • E-mail: [techsupport@invitrogen.com](mailto:techsupport@invitrogen.com)

**Explanation of symbols**

| Symbol  | Description   | Symbol  | Description                                  |
|---|---|---|--|
|  | Catalogue Number  |  | Batch code                                   |
|  | Research Use Only   |  | <i>In vitro</i> diagnostic medical device    |
|  | Use by  |  | Temperature limitation                       |
|  | Manufacturer  |  | European Community authorised representative |
|  | Without, does not contain   |  | With, contains                               |
|  | Protect from light  |  | Consult accompanying documents               |
|  | Directs the user to consult instructions for use (IFU), accompanying the product. |   |  |

**Limited Use Label License No. 358: Research Use Only**

The purchase of this product conveys to the purchaser the limited, non-transferable right to use the purchased amount of the product only to perform internal research for the sole benefit of the purchaser. No right to resell this product or any of its components is conveyed expressly, by implication, or by estoppel. This product is for internal research purposes only and is not for use in commercial applications of any kind, including, without limitation, quality control and commercial services such as reporting the results of purchaser's activities for a fee or other form of consideration. For information on obtaining additional rights, please contact [outlicensing@lifetech.com](mailto:outlicensing@lifetech.com) or Out Licensing, Life Technologies, 5791 Van Allen Way, Carlsbad, California 92008.

---

©2011 Life Technologies Corporation. All rights reserved. The trademarks mentioned herein are the property of Life Technologies Corporation or their respective owners.

**For Research Use Only. CAUTION: Not for human or animal therapeutic or diagnostic use.**

[www.invitrogen.com](http://www.invitrogen.com)

Invitrogen Corporation • 7335 Executive Way • Frederick • MD 21704 • Tel: 800.955.6288 • E-mail: [techsupport@invitrogen.com](mailto:techsupport@invitrogen.com)