

Phospho-Pyk2 (Tyr402) Antibody

100 μ l
 (10 western blots)

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This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Entrez-Gene ID #2185
Swiss-Prot Acc. #Q14289

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, IP Endogenous	H, M, (R)	116 kDa	Rabbit**

Background: Protein tyrosine kinase Pyk2, also called CAK β , RAFTK and CADTK, is a nonreceptor tyrosine kinase structurally related to focal adhesion kinase (FAK) (1-4). Pyk2 is predominantly expressed in cells derived from hematopoietic lineages and in the central nervous system. Pyk2 is one of the signaling mediators for the G-protein-coupled receptors and MAP kinase signaling pathway. It plays an important role in cell spreading and migration (5-7).

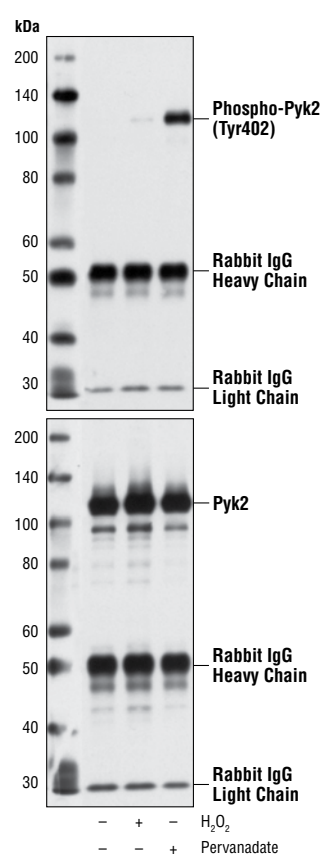
Pyk2 is tyrosine phosphorylated and activated upon ligation of TCR (8,9). Phosphorylated Tyr402 of Pyk2 is required for the phosphorylation of other tyrosines on Pyk2 and provides a binding site for Fyn SH2 in the T-cell activation (10).

Specificity/Sensitivity: Phospho-Pyk2 (Tyr402) Antibody detects endogenous levels of Pyk2 only when phosphorylated at tyrosine 402. This antibody may cross-react with other phospho-tyrosine containing proteins.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Tyr402 of human Pyk2. Antibodies are purified by protein A and peptide affinity chromatography.

Background References:

- (1) Avraham, S. et al. (1995) *J. Biol. Chem.* 270, 27742-27751.
- (2) Lev, S. et al. (1995) *Nature* 376, 737-745.
- (3) Sasaki, H. et al. (1995) *J. Biol. Chem.* 270, 21206-21219.
- (4) Yu, H. et al. (1996) *J. Biol. Chem.* 271, 29993-29998.
- (5) Duong, L.T. et al. (2001) *J. Biol. Chem.* 276, 7484-7492.
- (6) Watson, J.M. et al. (2001) *J. Biol. Chem.* 276, 3536-3542.
- (7) Tang, H. et al. (2002) *J. Biol. Chem.* 277, 5441-5447.
- (8) Berg, N.N. and Ostergaard, H.L. (1997) *J. Immunol.* 159, 1753-1757.
- (9) Ganju, R.K. et al. (1997) *J. Exp. Med.* 185, 1055-1063.
- (10) Katagiri, T. et al. (2000) *J. Biol. Chem.* 275, 19645-19652.



Immunoprecipitation of Pyk2 from Ramos cells, untreated, H₂O₂-treated, or Pervanadate-treated, using Pyk2 Antibody #3292, followed by Western blot with Phospho-Pyk2 (Tyr402) Antibody (upper), or Pyk2 Antibody #3292 (lower).

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 μ g/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

***Species cross-reactivity is determined by western blot.**

****Anti-rabbit secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:

Western Blotting	1:1000
Immunoprecipitation	1:100

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.