

Phospho-Tyrosine Mouse mAb (P-Tyr-102)

✓ 100 µg
(40 western blots)

Orders ■ 877-616-CELL (2355)
orders@cellsignaling.com
Support ■ 877-678-TECH (8324)
info@cellsignaling.com
Web ■ www.cellsignaling.com

rev. 10/29/10

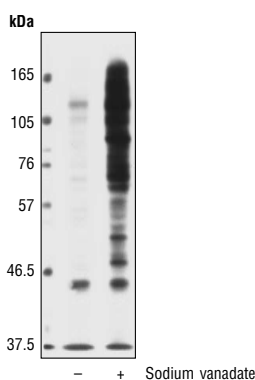
This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Applications	Species Cross-Reactivity*	Isotype
W, IP, IHC-P, E-P, F Endogenous	All	Mouse IgG1**

Background: Tyrosine phosphorylation plays a key role in cellular signaling (1). In cancer, unregulated tyrosine kinase activity can drive malignancy and tumor formation by generating inappropriate proliferation and survival signals (2). Antibodies specific for phospho-tyrosine (3,4) have been invaluable reagents in these studies. The phospho-tyrosine Mouse mAbs developed by CST (P-Tyr-100, #9411 and P-Tyr-102, #9416) provide exceptionally sensitive new tools of increased utility for studying tyrosine phosphorylation and monitoring tyrosine kinase activity in high throughput drug discovery.

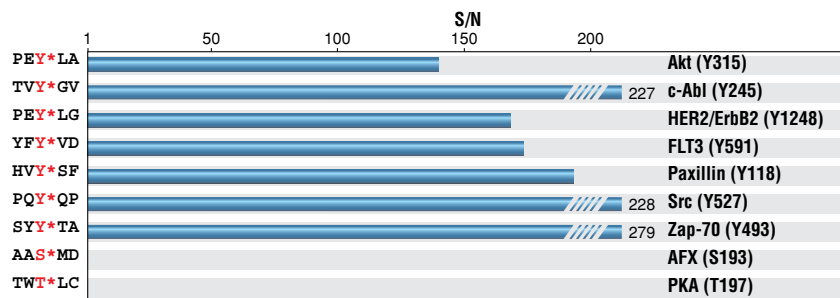
Specificity/Sensitivity: Phospho-Tyrosine Mouse mAb (P-Tyr-102) is a high affinity IgG1 monoclonal antibody. ELISAs using a wide variety of phospho-peptides show that P-Tyr-102 binds phospho-Tyr in a manner largely independent of the surrounding amino acid sequence.

2D gel western blot analysis of pervanadate-treated cell extracts also shows that P-Tyr-102 interacts with a broad range of tyrosine-phosphorylated proteins. P-Tyr-102's fine specificity in terms of the sequence context in which it can recognize phospho-tyrosine seems to differ slightly from that of P-Tyr-100 #9411. P-Tyr-102 does not recognize peptides containing phospho-Ser or phospho-Thr. (U.S. Patent No.'s.: 6,441,140; 6,982,318; 7,259,022; 7,344,714; U.S.S.N. 11,484,485; and all foreign equivalents.)



Western blot analysis of extracts from sodium vanadate treated (3 mM for 0.5 hour) NIH/3T3 cells, using Phospho-Tyrosine Mouse mAb (P-Tyr-102).

Source/Purification: Monoclonal antibody is produced by immunizing animals with synthetic phospho-Tyr-containing peptides.



Phospho-Tyrosine Mouse mAb (P-Tyr-102) ELISA Assay: Signal-to-noise ratio of phospho- versus nonphospho-peptides. (Y* denotes phosphorylated tyrosine.)

License/Use Restrictions: Use of CST Motif Antibodies within certain methods (e.g., U.S. Patent No.'s 7,198,896 & 7,300,753) may require a license from CST. For information regarding academic licensing terms please have your technology transfer office contact CST Legal Department at CST_ip@cellsignaling.com. For information regarding commercial licensing terms please contact CST Pharma Services Department at ptmscan@cellsignaling.com.

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

*Species cross-reactivity is determined by western blot.

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

Recommended Antibody Dilutions:

Western Blotting	1:2000
Immunoprecipitation	1:50
Immunohistochemistry (paraffin)	1:50
IHC Protocol	EDTA/TBST
ELISA-Peptide	1:1000
Flow Cytometry	1:400

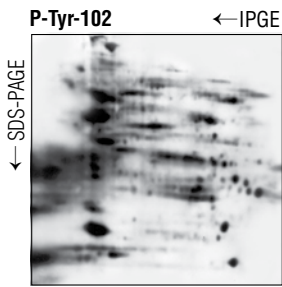
For application specific protocols please see the web page for this product at www.cellsignaling.com.

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

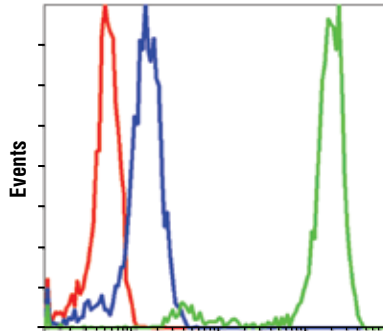
Background References:

- (1) Schlessinger, J. (2000) *Cell* 103, 211–225.
- (2) Blume-Jensen, P. and Hunter, T. (2001) *Nature* 411, 355–365.
- (3) Ward, S.G. et al. (1992) *J. Biol. Chem.* 267, 23862–23869.
- (4) Glenney, J.R. et al. (1988) *J. Immunol. Methods.* 109, 277–285.

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.

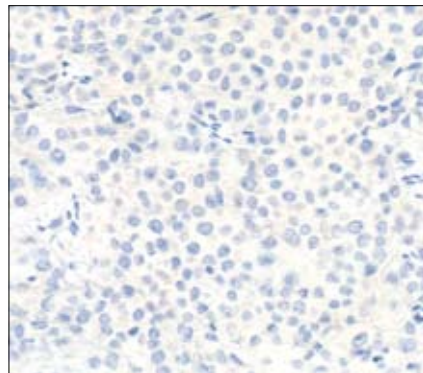
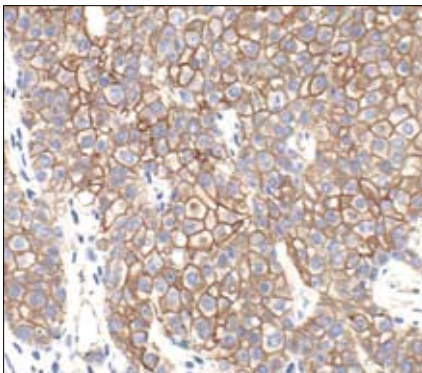


Comparison of Phospho-Tyrosine Mouse mAb (P-Tyr-102) and PY20 phospho-tyrosine antibodies: Western blot analysis of extracts from Jurkat cells treated with 1 mM pervanadate for 30 minutes prior to lysis. Proteins were separated by 2D electrophoresis prior to blotting.

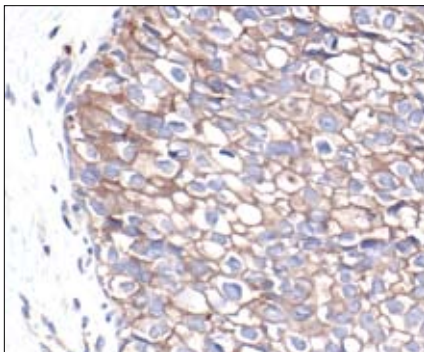


Phospho-Tyrosine Mouse mAb (P-Tyr-102)

Flow cytometric analysis of NIH/3T3 cells, untreated (blue) or pervanadate-treated (green), using Phospho-Tyrosine Mouse mAb (P-Tyr-102) compared with a nonspecific negative control antibody (red).



Immunohistochemical analysis of paraffin-embedded NCI-H1650 xenograft untreated (left) or λ -phosphatase-treated (right), using Phospho-Tyrosine Mouse mAb (P-Tyr-102).



Immunohistochemical analysis of paraffin-embedded human breast carcinoma, using Phospho-Tyrosine Mouse mAb (P-Tyr-102).