Revision 6

Store at -20C

#9411

Phospho-Tyrosine Mouse mAb (P-Tyr-100)

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Applications:	Reactivity:	Sensitivity:	Source/Isotype:
W, IP, IHC-P, IF-F, IF-IC, FC-FP, E-P	All	Endogenous	Mouse IgG1

Product Usage Information

The phosphorylated form of the peptide can be detected with Phospho-Tyrosine mAb (P-Tyr-100) #9411. Sample kinase protocol is attached.

Application	Dilution
Western Blotting	1:2000
Immunoprecipitation	1:100
Immunohistochemistry (Paraffin)	1:2400 - 1:9600
Immunofluorescence (Frozen)	1:1600 - 1:3200
Immunofluorescence (Immunocytochemistry)	1:1600 - 1:3200
Flow Cytometry (Fixed/Permeabilized)	1:1600 - 1:6400
Peptide ELISA (DELFIA)	1:4000

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.

For a carrier free (BSA and azide free) version of this product see product #80379.

Specificity/Sensitivity

Phospho-Tyrosine Mouse mAb (P-Tyr-100) is a high affinity antibody. ELISAs against a wide variety of phosphopeptides indicate that P-Tyr-100 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-100 interacts with a broad range of tyrosine-phosphorylated proteins. P-Tyr-100 does not cross-react with peptides containing phospho-Ser or phospho-Thr.

Source / Purification

Monoclonal antibody is produced by immunizing animals with phospho-tyrosine containing peptides .

Background

Tyrosine phosphorylation plays a key role in cellular signaling (1). Research studies have shown that 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 monoclonal antibodies developed by Cell Signaling Technology are exceptionally sensitive tools for studying tyrosine phosphorylation and monitoring tyrosine kinase activity in high throughput drug discovery.

Background References

1. Schlessinger, J. (2000) *Cell* 103, 211-25.
2. Blume-Jensen, P. and Hunter, T. (2001) *Nature* 411, 355-65.
3. Ward, S.G. et al. (1992) *J Biol Chem* 267, 23862-9.
4. Glenney, J.R. et al. (1988) *J Immunol Methods* 109, 277-85.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

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

Applications Key

W: Western Blotting **IP:** Immunoprecipitation **IHC-P:** Immunohistochemistry (Paraffin) **IF-F:** Immunofluorescence (Frozen) **IF-IC:** Immunofluorescence (Immunocytochemistry) **FC-FP:** Flow Cytometry (Fixed/Permeabilized) **E-P:** Peptide ELISA (DELFIA)

Cross-Reactivity Key

All: All Species Expected

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