Revision 1

Store at -20C

#9391

Phospho-Threonine-Proline Mouse mAb (P-Thr-Pro-101)

Cell Signaling TECHNOLOGY®

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	Source/Isotype:
W, IHC-P, E-P	All	Endogenous	Mouse IgM

Product Usage Information

Application	Dilution
Western Blotting	1:5000
Immunohistochemistry (Paraffin)	1:400
Peptide ELISA (DELFIA)	1:1000

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.

Specificity/Sensitivity

Phospho-Threonine-Proline Mouse mAb (P-Thr-Pro-101) detects phospho-threonine only when followed by proline. It reacts with proteins and peptides phosphorylated at the Thr-Pro motif in an otherwise highly context-independent fashion. The antibody is phospho-specific, but does not recognize phospho-threonine in the absence of an adjacent proline. The antibody does not react with phospho-tyrosine but does react with some phospho-serine peptides containing the phospho-serine-proline motif (e.g., phospho-Elk-1). (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.)

Source / Purification

Monoclonal antibody is produced by immunizing animals with synthetic phospho-threonine-proline-containing peptides. This antibody is a mouse IgM clone and can be recognized by anti-mouse Ig (whole molecule) secondary antibody.

Background

The MAPK and CDK families of serine/threonine protein kinases play important roles in cell signaling and cell cycle control. These kinases phosphorylate threonine or serine followed by a proline residue (1-6). To facilitate the study and discovery of new MAPK and CDK substrates, Cell Signaling Technology has developed antibodies that bind to phospho-threonine or phospho-serine followed by proline.
As determined by ELISA using a wide variety of phospho-Thr-Pro peptides, Phospho-Threonine-Proline Monoclonal Antibody (P-Thr-Pro-101) recognizes the phospho-Thr-Pro motif in a highly context-independent fashion. It also interacts with a broad range of phospho-Thr-Pro-containing proteins as determined by western analysis of nocodazole-treated Jurkat cell extracts resolved on 2-D gels.

Background References

1. Pearson, R.B. and Kemp, B.E. (1991) *Methods Enzymol* 200, 62-81.
2. Seger, R. and Krebs, E.G. (1995) *FASEB J* 9, 726-35.
3. Nurse, P. (2000) *Cell* 100, 71-8.
4. Cross, T.G. et al. (2000) *Exp Cell Res* 256, 34-41.
5. Yang, C.C. et al. (1998) *J Protein Chem* 17, 329-35.
6. Reynolds, C.H. et al. (2000) *J Neurochem* 74, 1587-95.

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 **IHC-P:** Immunohistochemistry (Paraffin) **E-P:** Peptide ELISA (DELFIA)

Cross-Reactivity Key

All: All Species Expected

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