Revision 1

Store at -20C

#6949

Phospho-Threonine Antibody (P-Thr-Polyclonal) (HRP Conjugate)

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

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

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Peptide ELISA (DELFIA)	1:2000

Storage

Supplied in 140 mM NaCl, 3 mM KCl, 10 mM sodium phosphate (pH 7.4) dibasic, 2 mM potassium phosphate monobasic, 2 mg/mL BSA, and 50% glycerol. Store at –20°C. *Do not aliquot the antibody.*

Specificity/Sensitivity

Phospho-Threonine Antibody (P-Thr-Polyclonal) (HRP Conjugate) detects proteins and peptides phosphorylated at threonine residues in a manner largely independent of the surrounding amino acid sequence. The antibody is phospho-specific and may cross-react with some phospho-serine-containing sequences. By ELISA, it recognizes a wide variety of threonine-phosphorylated peptides, and by 2D gel western blot analysis, it recognizes a large number of presumably threonine-phosphorylated proteins. We recommend the use of Phospho-Threonine-Proline Mouse mAb (P-Thr-Pro-101) #9391 to detect proteins containing threonine followed by proline. (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

Polyclonal antibodies are produced by immunizing animals with synthetic phospho-Thr-containing peptides . Antibodies are purified by protein A and peptide affinity chromatography.

Description

This Cell Signaling Technology® antibody is conjugated to the carbohydrate groups of horseradish peroxidase (HRP) via its amine groups. The HRP conjugated antibody is expected to exhibit the same species cross-reactivity as the unconjugated Phospho-Threonine Antibody (P-Thr-Polyclonal) #9381.

Background

Much of the dynamic behavior of cellular proteins, including the regulation of molecular interactions (1), subcellular localization (2), and transcriptional regulation (3) is controlled by a variety of post-translational modifications (4). Antibodies specific for these post-translational modifications are invaluable tools in the quest to understand normal and pathogenic molecular and cellular behavior. General protein modification antibodies are designed to react with modified amino acid residues (e.g. phospho-threonine, phospho-tyrosine, acetyl-lysine, nitro-tyrosine) independently of the sequence in which they are embedded. This ability to recognize modified residues in a "context-independent" fashion gives these antibodies broad reactivities, presumably conferring upon them the ability to react with hundreds of distinct proteins. This broad pattern of reactivity makes these antibodies especially valuable in multiplex analyses and target discovery programs.

Background References

1. Yaffe, M.B. and Elia, A.E. (2001) *Curr Opin Cell Biol* 13, 131-8.
2. Appella, E. and Anderson, C.W. (2001) *Eur J Biochem* 268, 2764-72.
3. Jenuwein, T. and Allis, C.D. (2001) *Science* 293, 1074-80.
4. Krishna, R.G. and Wold, F. (1993) *Adv Enzymol Relat Areas Mol Biol* 67, 265-98.

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 **E-P:** Peptide ELISA (DELFIA)

Cross-Reactivity Key

All: All Species Expected

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Limited Uses

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