Phospho-Threonine Antibody (P-Thr-Polyclonal)

Applications | Species Cross-Reactivity* | Source
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W, IP, E-P | All | Rabbit**
Endogenous | | |

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

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

### 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 posttranslational modifications (4). Antibodies specific for these posttranslational 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 targets discovery programs.

Protein kinases are among the most abundant eukaryotic regulatory proteins, over 500 separate kinase genes are encoded in mammalian genomes (5,6). In spite of the importance of kinases in eukaryotic biology, relatively few of their physiological targets are known. Phospho-Threonine Antibody (P-Thr-Polyclonal) #9381 and Phospho-Threonine (42H4) mAb #9386 provide powerful tools for discovering targets of serine/threonine kinases, for monitoring and characterizing in vitro threonine phosphorylation reactions as well as for high throughput Ser/Thr kinase drug discovery.

### Specificity/Sensitivity:

Phospho-Threonine Antibody (P-Thr-Polyclonal) 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-tyrosine, acetyl-lysine, nitro-tyrosine) modified amino acid residues (e.g., phospho-threonine, phospho-tyrosine, acetyl-lysine, nitro-tyrosine)

### 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.

### Storage:

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

### License/Use Restrictions:

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@cellsignal.com. For information regarding commercial licensing terms please contact CST Pharma Services Department at PTmmcsn@cellsignal.com.

### 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.