

Phospho-TCTP (Ser46) Antibody

✓ 100 µl
(10 western blots)

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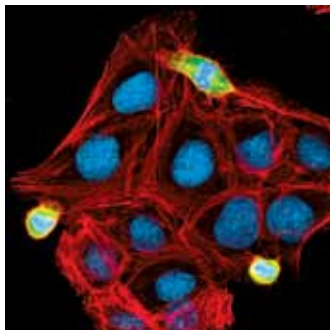
This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, IHC-P, IF-IC, F Endogenous	H, M, R, Mk	23 kDa	Rabbit**

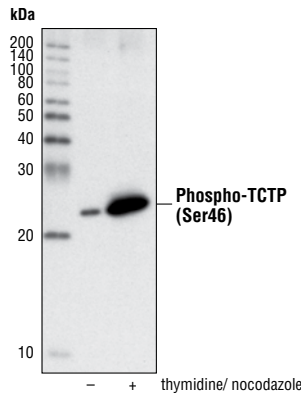
Background: Translationally controlled tumor protein (TCTP/p23/HRF) is a ubiquitously expressed and highly conserved protein involved in various cellular processes, including a role as a histamine releasing factor in chronic allergic disease (1). TCTP binds tubulin in a cell cycle dependent manner and is associated with the mitotic spindle (2). In addition, TCTP interacts with the actin cytoskeleton to regulate cell shape (3). In mitosis, TCTP is phosphorylated by Plk at Ser46, decreasing microtubule stability (4,5). TCTP interacts with the small GTPase Rheb, possibly acting as a GEF and thus activating the TORC1 pathway, controlling cell growth and proliferation (6,7). TCTP has also been shown to be involved in apoptosis and cell stress (8-11). In cultured cells, reduction of TCTP expression can cause tumor reversion (12).

Specificity/Sensitivity: Phospho-TCTP (Ser46) Antibody recognizes endogenous levels TCTP protein only when phosphorylated at Ser46. In some cell types the antibody may recognize an 80-100 kDa protein of unknown origin.

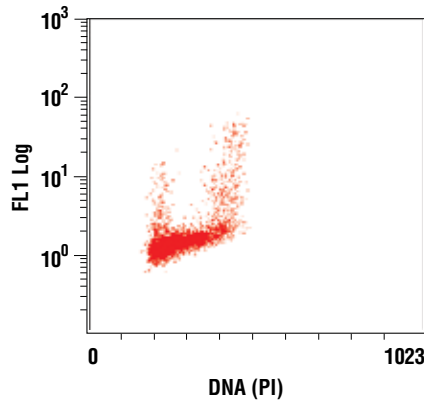
Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser46 of human TCTP protein. Antibodies are purified by protein A and peptide affinity chromatography.



Confocal immunofluorescent analysis of U-2 OS cells using Phospho-TCTP1 (Ser46) Antibody (green). Actin filaments have been labeled with DY-554 phalloidin (red). Blue pseudocolor = DRAQ5® #4084 (fluorescent DNA dye).



Western blot analysis of extracts from U-2 OS cells, untreated or synchronized in mitosis by thymidine block followed by release into nocodazole, using Phospho-TCTP (Ser46) Antibody.



Flow cytometric analysis of Jurkat cells using Phospho-TCTP (Ser46) Antibody compared to propidium iodide (DNA content).

Entrez-Gene ID #7178
Swiss-Prot Acc. #P13693

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.

*Species cross-reactivity is determined by western blot.

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

Recommended Antibody Dilutions:

Western blotting	1:1000
Immunohistochemistry (Paraffin)	1:100†
Unmasking buffer:	Citrate
Antibody diluent:	SignalStain® Antibody Diluent #8112
Detection reagent:	SignalStain® Boost (HRP, Rabbit) #8114
†Optimal IHC dilutions determined using SignalStain® Boost IHC Detection Reagent.	
Immunofluorescence (IF-IC)	1:200
Flow Cytometry	1:100

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

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

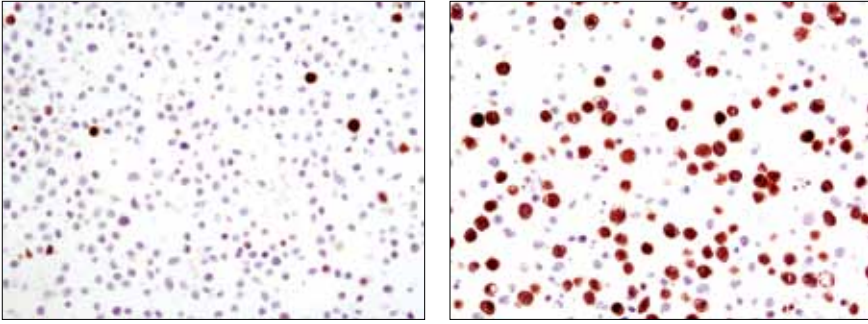
Background References:

- (1) MacDonald, S.M. et al. (1995) *Science* 269, 688-90.
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- (10) Gnanasekar, M. et al. (2009) *Biochem Biophys Res Commun* 386, 333-7.
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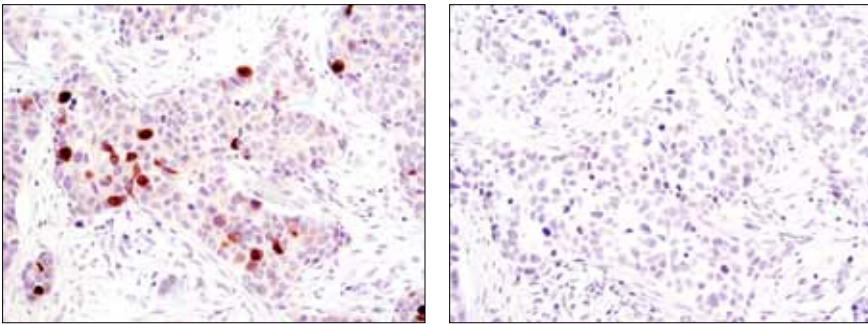
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IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide
Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine
Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.



Immunohistochemical analysis of paraffin-embedded HT-29 cell pellets, control (left) or nocodazole-treated (right), using Phospho-TCTP (Ser46) Antibody.



Immunohistochemical analysis of paraffin-embedded human breast carcinoma, control (left) or λ -phosphatase-treated (right), using Phospho-TCTP (Ser46) Antibody.