

#9401 Store at -20°C

Phospho-c-Myc (Thr58/Ser62) Antibody

✓ 100 µl
(10 Western mini-blot)



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This product is for *in vitro* research use only and is not intended for use in humans or animals.
This product is not intended for use as a therapeutic or in diagnostic procedures.

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, F, E-P	H, M, R, Mk	57-70 kDa	Rabbit**

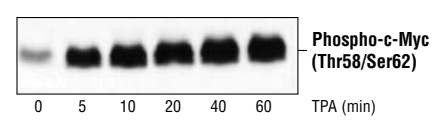
Background: Members of the Myc/Max/Mad network function as transcriptional regulators with roles in various aspects of cell behavior including proliferation, differentiation and apoptosis (1). These proteins share a common basic-helix-loop-helix leucine zipper (bHLH-ZIP) motif required for dimerization and DNA-binding. Max was originally discovered based on its ability to associate with c-Myc and found to be required for Myc's ability to bind DNA and activate transcription (2). Subsequently, Max has been viewed as a central component of the transcriptional network, forming homodimers as well as heterodimers with other members of the Myc and Mad families (1). The association between Max and either Myc or Mad can have opposing effects on transcriptional regulation and cell behavior (1). The Mad family consists of four related protein designated Mad1, Mad2 (Mxi1), Mad3 and Mad4 and more distantly related members of the bHLH-ZIP family, Mnt and Mga. Like Myc, the Mad proteins are tightly regulated with short half-lives. In general, Mad family members interfere with Myc-mediated processes such as proliferation, transformation and prevention of apoptosis by inhibiting transcription (3,4).

Specificity/Sensitivity: Phospho-c-Myc (Thr58/Ser62) Antibody detects endogenous levels of c-Myc singly or doubly phosphorylated at Thr58 and Ser62.

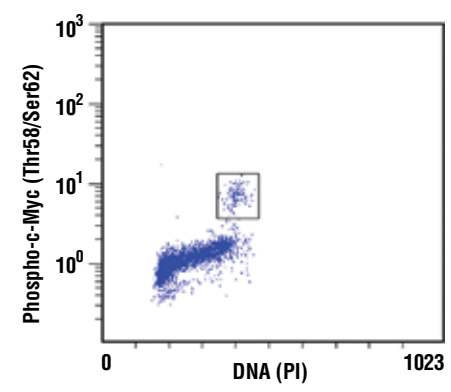
Source/Purification: Polyclonal antibodies are produced by immunizing rabbits with a synthetic phospho-peptide (KLH-coupled) corresponding to residues around Thr58/Ser62 of human c-Myc. Antibodies are purified by protein A and peptide affinity chromatography.

Background References:

- (1) Baudino, T.A. and Cleveland, J.L. (2001) *Mol. Cell Biol.* 21, 691-702.
- (2) Blackwood, E.M. and Eisenman, R.N. (1991) *Science* 251, 1211-1217.
- (3) Henriksson, M. and Luscher, B. (1996) *Adv. Cancer Res.* 68, 109-182.
- (4) Grandori, C. et al. (2000) *Annu. Rev. Cell Dev. Biol.* 16, 653-699.



Western blot analysis of extracts from A431 cells, untreated or TPA-treated, using Phospho-c-Myc (Thr58/Ser62) Antibody.



Flow cytometric analysis of untreated Jurkat cells, using Phospho-c-Myc (Thr58/Ser62) Antibody versus propidium iodide (DNA content). The boxed population indicates phospho-c-Myc-positive cells.

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
Flow Cytometry	1:400
ELISA-Peptide	1:1000

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

Companion Products:

- c-Myc Antibody #9402
- Phospho-p44/42 MAP Kinase (Thr202/Tyr204) Antibody #9101
- Phospho-MEK1/2 (Ser217/221) Antibody #9121
- Phospho-SAPK/JNK (Thr183/Tyr185) Antibody #9251
- Phototope®-HRP Western Blot Detection System, Anti-rabbit IgG, HRP-linked Antibody #7071
- Anti-rabbit IgG, HRP-linked Antibody #7074
- Prestained Protein Marker, Broad Range (Premixed Format) #7720
- Biotinylated Protein Ladder #7727
- 20X LumiGLO® Reagent and 20X Peroxide #7003

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

Selected Application References:

- Kamemura, K. et al. (2002) Dynamic interplay between O-glycosylation and O-phosphorylation of nucleocytoplasmic proteins. *J. Biol. Chem.* 277, 19229-19235. Application: W.
- Noguchi, K. et al. (1999) Regulation of c-Myc through phosphorylation at Ser-62 and Ser-71 by c-Jun N-terminal kinase. *J. Biol. Chem.* 274, 32580-32587. Application: W.
- Sears, R. et al. (2000) Multiple Ras-dependent phosphorylation pathways regulate Myc protein stability. *Genes Dev.* 14, 2501-2514. Application: W.
- Sun, Y. and Clark, E.A. (1999) Expression of the c-myc proto-oncogene is essential for HIV-1 infection in activated T cells. *J. Exp. Med.* 189, 1391-1398. Application: W.
- Watnick, R.S. et al. (2003) Ras modulates Myc activity to repress thrombospondin-1 expression and increase tumor angiogenesis. *Cancer Cell* 3, 219-231. Application: W.

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—ELISA 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—zebra fish B—bovine

Dg—dog Pg—pig Sc—S. cerevisiae All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.