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Product Information

Anti-phospho-c-Myc (pThr^{58}/pSer^{62})
produced in rabbit, affinity isolated antibody

Catalog Number **M8433**

Product Description

Anti-phospho-c-Myc (pThr^{58}/pSer^{62}) is produced in rabbit using as an immunogen a synthetic peptide corresponding to residues around phospho-Thr^{58} and phospho-Ser^{62} of human c-Myc conjugated to KLH. The antibody is affinity-purified using protein A and peptide affinity chromatography.

Anti-phospho-c-Myc (pThr^{58}/pSer^{62}) recognizes endogenous levels of c-Myc phosphorylated at Thr^{58} and Ser^{62}. The antibody does not react with non-phosphorylated c-Myc. This antibody reacts with human, mouse, and rat phospho-c-Myc and may be used for immunoblotting (57 kDa), immunoprecipitation, and immunocytochemistry.

The transcription factor c-Myc is a short lived, nuclear phosphoprotein involved in cell proliferation, differentiation, and cancer regulation.[1-4] Expression of c-Myc is strictly controlled by mitogens and is required for cell cycle entry. c-Myc binds to DNA and activates transcription as a heterodimeric complex with Max. c-Myc is phosphorylated *in vitro* by MAP kinase at Ser^{62},[3] and *in vivo* c-Myc is phosphorylated at both Thr^{58} and Ser^{62}. Mutation of Thr^{58} and Ser^{62} to Ala inhibits the ability of c-Myc to activate transcription[3] suggesting phosphorylation regulates the ability of c-Myc to stimulate transcription. c-Myc appears to regulate multiple aspects of growth control by promoting cell proliferation in the presence of cdk inhibitors and inducing apoptosis with overexpression in serum deprived cells.

Reagent

The product is supplied as a solution in PBS, pH 7.2, containing 50% glycerol, 0.02% thimerosal, and 1% BSA.

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

Store at –20 °C. Do not aliquot the antibody. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: A working dilution of 0.5-4 µg/mL is recommended using an extract from TPA-treated A431 cells and chemiluminescent detection. Incubate the membrane with diluted antibody in 5% bovine serum albumin, 1× Tris buffered saline, and 0.1% TWEEN®-20 at 2–8 °C with gentle shaking, overnight.

Immunohistochemistry: Recommended working dilution is 10-20 µg/mL.

Note: In order to obtain best results in various techniques and preparations, we recommend determining optimal working dilution by titration.

References

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4. Alevizopoulos, K. et al., *EMBO. J.*, **16**, 5322-5333 (1997).
5. Seth, A. et al., *Mol. Cell. Biol.*, **13**, 4125-4136 (1993).

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