

Anti-cMyc phospho-Ser62 antibody, monoclonal (33A12E10)

Catalog # 71-161 100ug

cMyc is a proto-oncogene, which is overexpressed in a wide range of human cancers. Myc gene encodes a transcription factor that regulates a great number of genes through binding on Enhancer Box sequences (E-boxes) and recruiting histone acetyltransferase. It can also act as a transcriptional repressor. It regulates cell growth, apoptosis, differentiation and stem cell self-renewal. Previous studies on the phosphorylation of c-Myc have suggested functional association between phosphorylation at Thr58/Ser62 by glycogen synthase kinase 3, cyclin dependent kinase, ERK2 and C-Jun N terminal Kinase (JNK), cell proliferation and cell cycle regulation. Phosphorylation at Ser62 is required for Ras-induced stabilization and is prerequisite for phosphorylation at Thr58 for its degradation (ref.1).

Applications

Western blot (~1ug/ml, Fig.1)

Immunofluorescence staining (0.5~1 µg/ml, Fig.2)

Immunohistochemistry (5 µg/ml, Perform heat mediated antigen retrieval with citrate buffer pH 6 before formalin treated paraffin embedded sectioning)

Flow cytometry (Use 1 µg for 10⁶ cells)

Indirect ELISA (Assay dependent concentration)

Specification

Antigen: Synthetic peptide containing phospho-Ser62 of cMyc

Isotype: Mouse IgG2b (κ)

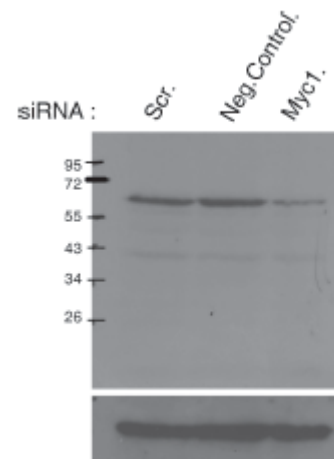
Form: Purified monoclonal antibody (IgG) 1mg/ml in PBS, 50% glycerol

Reactivity: Human. Expected to react with mouse and rat from the sequence identity.

Storage: Ship 4°C and store at -20°C (long period, -70°C)

Data Link UniProtKB/Swiss-Prot [P01106](#) (MYC_HUMAN)

Fig. 1 Identification of cMyc protein whose Ser62 is phosphorylated by Western blot. Samples: Crude cell extracts of AGS (gastric adenocarcinoma) cells. Scr: scrambled siRNA was introduced into the cells as a negative control. Neg. Control: Negative control siRNA from Qiagen was transfected. Myc1: siRNA for cMyc was transfected. The data was provided by Drs. A. Khanna and J. Westermark of University of Tampere.



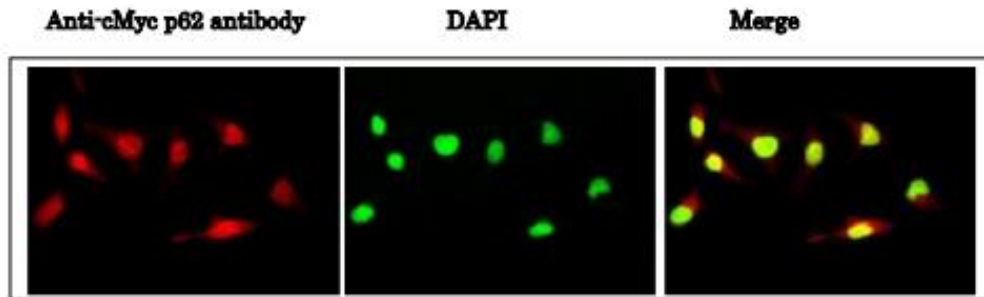


Fig. 2. Immunofluorescence staining of cMyc phosho-Ser62 in nuclei of HeLa cells. HeLa cells were fixed with 4% paraformaldehyde overnight, permeabilized with 0.25% Triton X-100 in PBS for 10 min. Cells were blocked prior to staining with 1/2,000 diluted anti-cMyc p62 antibody in 1% BSA in PBS at 4°C overnight. Cells were stained with a secondary antibody, goat anti-mouse IgG conjugated with Alex 488, at 1/1,000 dilution in 1% BSA for 1 hr at room temperature. Nucleus (DNA) was stained with DAPI

References

1. Sears R et al. Genes Dev 14:2501-2514 (2000) PMID: [11018017](#)
2. Junttila MR et al. Cell 130: 51-62 (2007) PMID: [17632056](#)
3. Khanna A et al. J Natl Cancer Inst 101: 793-805 (2009) PMID: [19470954](#)