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Inspiration for Life Science

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Catalog No. 71-161EX

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

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

1. Western blotting (~1ug/ml, Fig.1)
2. Immunofluorescence staining (0.5~1 µg/ml, Fig.2)
3. Immunohistochemistry (5 µg/ml, Perform heat mediated antigen retrieval with citrate buffer pH 6 before formalin treated paraffin embedded sectioning)
4. Flow cytometry (Use 1 µg for 10^6 cells)
5. Indirect ELISA (Assay dependent concentration)

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.
Size: 50 ug
Storage: Shipped at 4℃ or -20℃ and stored at -20℃.
Data Link UniProtKB/Swiss-Prot **P01106** (MYC_HUMAN)

References: This product was used in references 1 and 2.

1. Junttila MR *et al* "CIP2A inhibits PP2A in human malignancies" *Cell* 130: 51-62 (2007) PMID: 17632056

2. Khanna A *et al* "MYC-dependent regulation and prognostic role of CIP2A in gastric cancer"*J Natl Cancer Inst* 101: 793-805 (2009) PMID: 19470954

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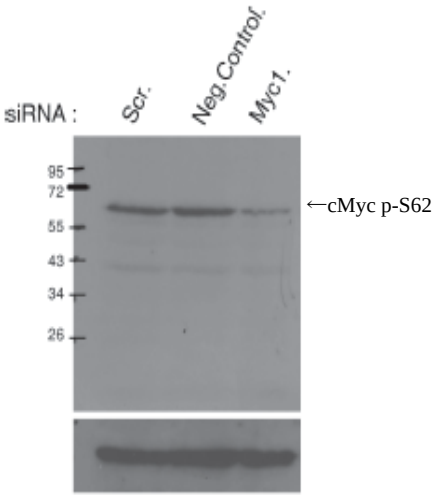

Fig.1. Identification of cMyc protein whose Ser62 is phosphorylated by Western blotting.

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Samples:Crude cell extracts of AGS (gastric adenocarcinoma) cells.
Scr; scrambled siRNA was introduced into the cells as a negative control.
Neg.Contol; 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. Finland)

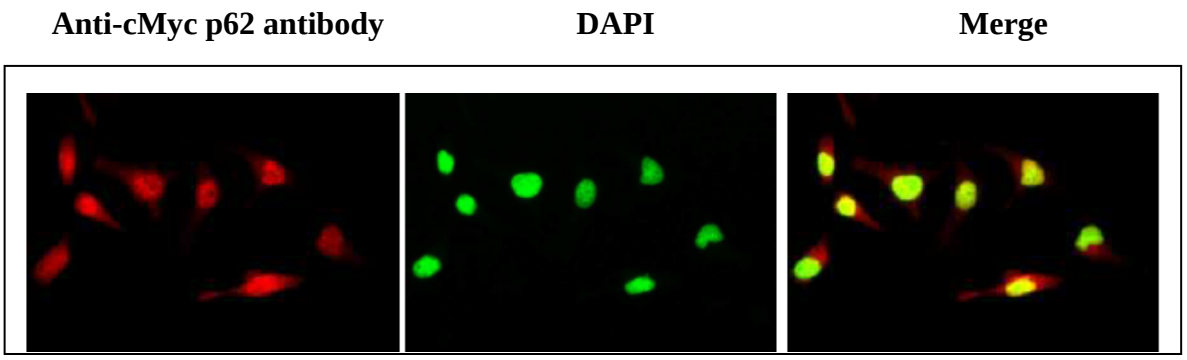

Fig.2. Immunofluorescence staining of cMyc phosho-Ser62 in nuclei of HeLa cells.

1. HeLa cells were fixed with 4% paraformaldehyde overnight, permealized with 0.25% Triton X-100 in PBS for 10 min.
2. Incubate cells with 1.5% BSA in PBS for 30 min to block non-specific binding of the antibodies. Incubate the cells with 1/2,000 diluted anti-cMyc p62 antibody in 1% BSA in PBS at 4℃ overnight.
3. Incubate cells 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.
4. Nucleus (DNA) was stained with DAPI

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Manufactured by BioAcademia Inc.

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