抗 cMyc phosho-Ser62 抗体、マウスモノクローナル(33A12E10)

71-161　　100 µg

保存： 4℃または-20℃で送付、-20℃で保存

抗原： ヒト cMyc タンパク質の phospho-Ser62 を含む合成ペプチド

形状: 精製マウスモノクローナル抗体（IgG） 1 mg/ml in PBS-, 50% glycerol

Isotype: マウス IgG2b κ

反応性: Ser62 がリン酸化されたヒト及びマウス cMyc タンパク質。ラットも同じ配列を持っているので、反応すると考えられるがテストされていない。

用途

１．ウエスタンブロッテイング（~1 µg/ml）

２．免疫蛍光染色　（0.25-1.0 ug/ml）

３．免疫組織染色（5 ug/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．ELISA (Assay-dependent)

背景：cMyc はヒトの種々の癌で広く高発現しているプロトオンコジーンである。cMyc タンパク質は多数の遺伝子の転写の促進と抑制に働き、細胞の増殖、アポトーシス、分化、幹細胞の自己更新を制御している。cMyc タンパク質の Ser62/Thr58 のリン酸化は細胞の増殖と細胞周期の制御に密接に関係している。Ser62 のリン酸化は Ras によって誘導される cMyc 安定化と活性化に必須であり、cMyc の分解のための Thr-58 のリン酸化にも必要である。

データリンク　UniProtKB/Swiss-Prot P01106 (MYC_HUMAN)

ユーザーのコメント：" It certainly looks that S62-p-Myc antibody specifically recognizes c-Myc protein in human cancer cells and will be a very useful resource for future studies." Dr. Jukka Westermark, Institute of Medical Technology, University of Tampere

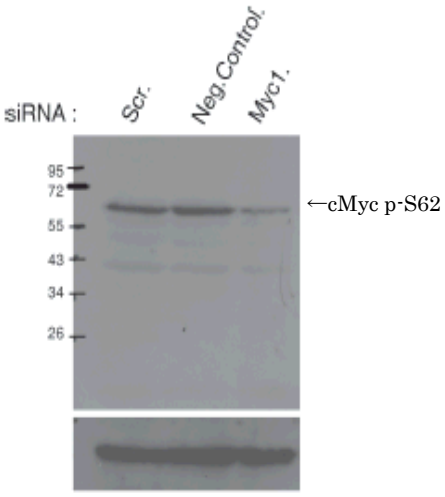

Fig.1. Identification of cMyc protein whose Ser62 is phosphorylated by Western **blotting.**

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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 was transfected.

Myc1; siRNA for cMyc was transfected.

(The data was provided by Drs.A. Khanna and J. Westermarck of University of Tampere. Finland)

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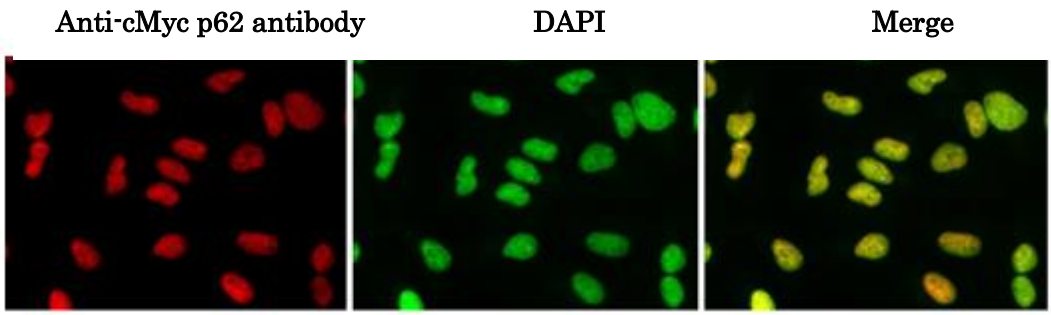

Fig.2. Immunofluorescence staining of cMyc phosho-Ser62 in nuclei of HeLa cells.

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 1/4,000 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

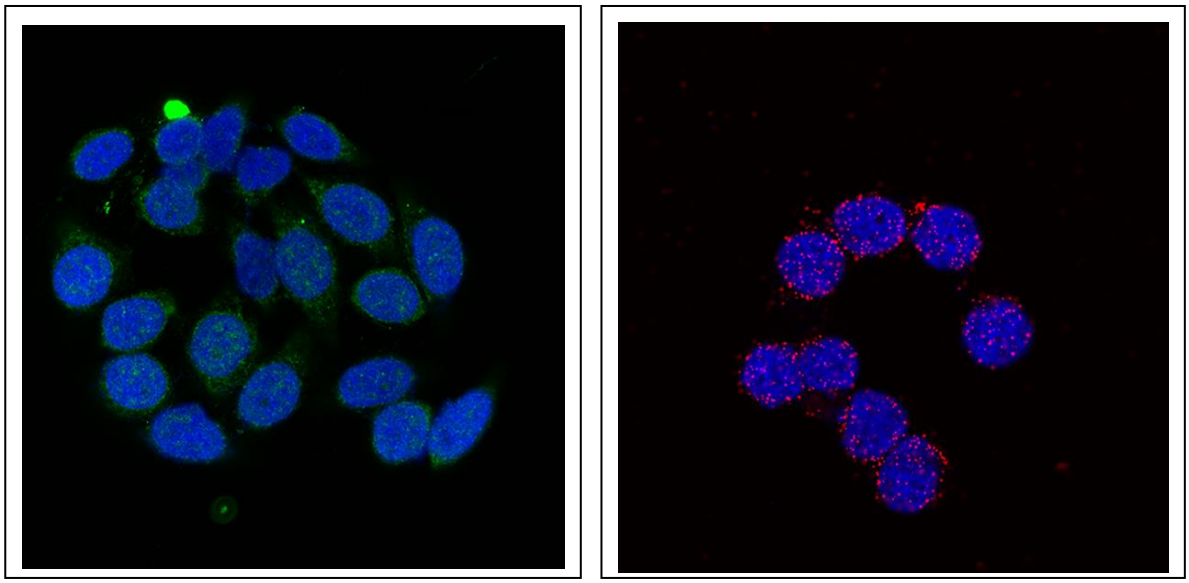

Fig.3. Immunofluorescence staining of cMyc phosho-Ser62 in HeLa cells

Left: Cells stained with anti-cMyc pS62 antibody (green) and DAPI (blue)

Right: Proximity Ligation Analysis with anti-cMyc pS62 and CIP2A antibodies, association of cMyc pS62 with CIP2A (red) in nuclei (DAPI, blue)

Images kindly provided by Prof Westermarck J and Dr. Qiao X. For details refer to Ref.1

文献: 本抗体は以下の論文に使用されている。文献 2 で本抗体が詳しく評価されている。

1. Myant K et al. Serine 62-Phosphorylated MYC Associates with Nuclear Lamins and Its Regulation by CIP2A Is Essential for Regenerative Proliferation. Cell Rep. 2015 Aug 11;12(6):1019-31. PMID: 26235622. **WB, IF (human, mouse)**
2. Tibbitts DC *et al.* Studying c-Myc serine 62 phosphorylation in leukemia cells: concern over antibody cross-reactivity. *Blood* 119:5334-5 (2012). PubMed: 22653959 **WB, IP (human)**
3. Mathiasen DP. Identification of a c-Jun N-terminal kinase-2-dependent signal amplification cascade that regulates c-Myc levels in ras transformation. Oncogene. 2012 Jan 19;31(3):390-401. PubMed: 21706057 **WB (mouse)**
4. Wang X. *et al.* Phosphorylation regulates c-Myc's oncogenic activity in the mammary gland. Cancer Res. 2011 Feb 1; 71(3): 925–936. PubMed: 3077809 **WB (human)**
5. Khanna A. MYC-dependent regulation and prognostic role of CIP2A in gastric cancer. J Natl Cancer Inst. 2009 Jun 3;101(11):793-805. PubMed: 19470954 **WB (human)**