abcam

Product datasheet

Anti-c-Myc (phospho S62) antibody ab51156

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Overview

Product name	Anti-c-Myc (phospho S62) antibody
Description	Rabbit polyclonal to c-Myc (phospho S62)
Host species	Rabbit
Specificity	ab51156 detects endogenous levels of Myc only when phosphorylated at serine 62.
Tested applications	**Suitable for:** ICC/IF, WB, IHC-P
Species reactivity	**Reacts with:** Human
Immunogen	Synthetic peptide corresponding to Human c-Myc (N terminal) (phospho S62). The antiserum was produced against synthesized phosphopeptide derived from human Myc around the phosphorylation site of serine 62 (P-L-SP-P-S). Database link: **P01106**
General notes	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7 Preservative: 0.02% Sodium azide Constituents: 50% Glycerol (glycerin, glycerine), 0.88% Sodium chloride, PBS PBS without Mg2+ and Ca2+
Purity	Protein A purified
Purification notes	The antibody against non-phosphopeptide was removed by chromatography using non-phosphopeptide corresponding to the phosphorylation site.

Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab51156 in the following tested applications.

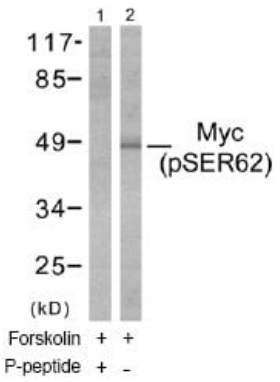
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF		Use at an assay dependent concentration.
WB		1/500 - 1/1000. Detects a band of approximately 49 kDa (predicted molecular weight: 49 kDa).
IHC-P		1/50 - 1/100.

Target

Function	Participates in the regulation of gene transcription. Binds DNA in a non-specific manner, yet also specifically recognizes the core sequence 5'-CAC[GA]TG-3'. Seems to activate the transcription of growth-related genes.
Involvement in disease	Note=Overexpression of MYC is implicated in the etiology of a variety of hematopoietic tumors. Note=A chromosomal aberration involving MYC may be a cause of a form of B-cell chronic lymphocytic leukemia. Translocation t(8;12)(q24;q22) with BTG1. Defects in MYC are a cause of Burkitt lymphoma (BL) [MIM:113970]. A form of undifferentiated malignant lymphoma commonly manifested as a large osteolytic lesion in the jaw or as an abdominal mass. Note=Chromosomal aberrations involving MYC are usually found in Burkitt lymphoma. Translocations t(8;14), t(8;22) or t(2;8) which juxtapose MYC to one of the heavy or light chain immunoglobulin gene loci.
Sequence similarities	Contains 1 basic helix-loop-helix (bHLH) domain.
Post-translational modifications	Phosphorylated by PRKDC. Phosphorylation at Thr-58 and Ser-62 by GSK3 is required for ubiquitination and degradation by the proteasome. Ubiquitinated by the SCF(FBXW7) complex when phosphorylated at Thr-58 and Ser-62, leading to its degradation by the proteasome. In the nucleoplasm, ubiquitination is counteracted by USP28, which interacts with isoform 1 of FBXW7 (FBW7alpha), leading to its deubiquitination and preventing degradation. In the nucleolus, however, ubiquitination is not counteracted by USP28, due to the lack of interaction between isoform 4 of FBXW7 (FBW7gamma) and USP28, explaining the selective MYC degradation in the nucleolus. Also polyubiquitinated by the DCX(TRUSS) complex.
Cellular localization	Nucleus > nucleoplasm. Nucleus > nucleolus.
Form	c-Myc is also expressed in the cytoplasm.

Images

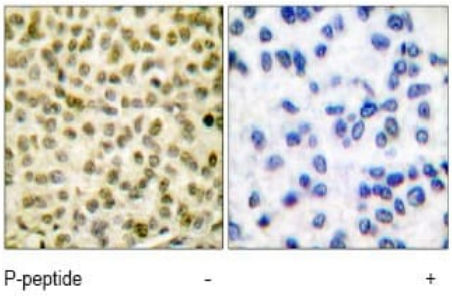


Western blot - Anti-c-Myc (phospho S62) antibody (ab51156)

All lanes : Anti-c-Myc (phospho S62) antibody (ab51156) at 1/500 dilution

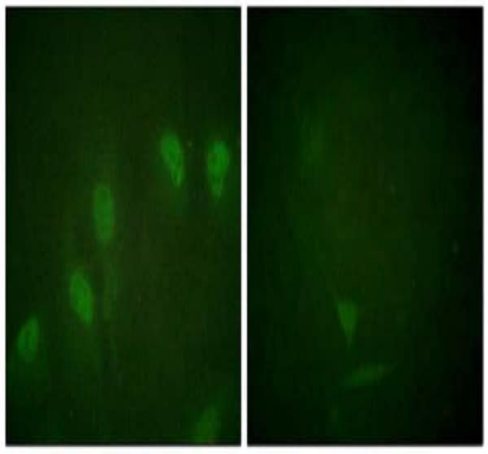
Lane 1 : extracts from 293 cells treated with 40nM Forskolin for 30min, with phosphopeptide
Lane 2 : extracts from 293 cells treated with 40nM Forskolin for 30min, without phosphopeptide

Predicted band size: 49 kDa
Observed band size: 49 kDa



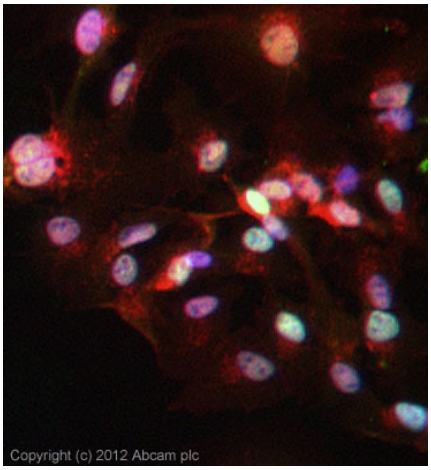
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-c-Myc (phospho S62) antibody (ab51156)

Immunohistochemical analysis of c-Myc (phospho S62) expression in paraffin-embedded human breast carcinoma tissue using 1/50 ab51156. left: untreated sample. Right: sample treated with phosphopeptide.



Immunocytochemistry/ Immunofluorescence - Anti-c-Myc (phospho S62) antibody (ab51156)

Immunofluorescence analysis of HeLa cells, treated (left) and untreated (right) with Forskolin (40nM, 15mins), using c-Myc (phospho-Ser62) antibody.



Immunocytochemistry/ Immunofluorescence - Anti-c-Myc (phospho S62) antibody (ab51156)

ICC/IF image of ab51156 stained HepG2 cells. The cells were 4% formlaldehyde fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab51156, 5µg/ml) overnight at +4°C. The secondary antibody (green) was **ab96899**, a goat **anti-rabbit DyLight® 488** (IgG; H+L) used at a 1/250 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.

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