abcam

Product datasheet

Anti-c-Myc antibody ab39688

14 Abreviews 89 References 5 Images

Overview

Product name	Anti-c-Myc antibody
Description	Rabbit polyclonal to c-Myc
Host species	Rabbit
Specificity	This antibody detects endogenous levels of total Myc protein.
Tested applications	**Suitable for:** WB, IHC-P
Species reactivity	**Reacts with:** Mouse, Human
Immunogen	Synthetic peptide corresponding to Human c-Myc. The antiserum was produced against synthesized non-phosphopeptide derived from human Myc around the phosphorylation site of threonine 358. Database link: P01106
Positive control	Purchase matching WB positive control: **Recombinant Human c-Myc protein** ›
General notes	**Notes regarding use with ICC/IF** Some customers have successfully used ab39688 in ICC/IF, however this product is currently only batch tested in western blot and IHC-P. Please contact Abcam Scientific Support for help on selecting the best antibody for your experiment. 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. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	pH: 7 Preservative: 0.02% Sodium azide

	Constituents: PBS, 0.87% Sodium chloride, 50% Glycerol
Purity	Immunogen affinity purified
Purification notes	The antibody was affinity purified from rabbit antiserum by affinity chromatography using epitope-specific immunogen.
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our Abpromise guarantee covers the use of ab39688 in the following tested applications.

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

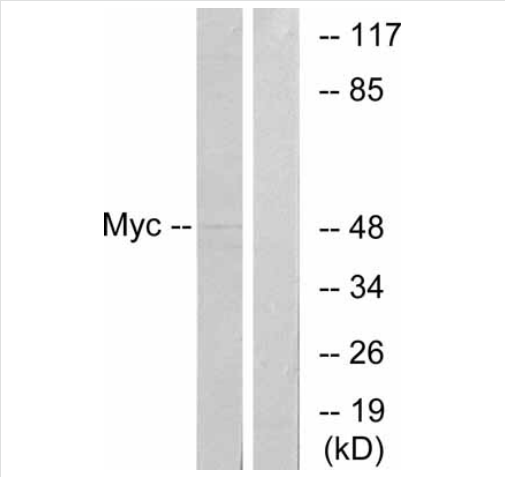
Application	Abreviews	Notes
WB	★★★★☆ (4)	1/500 - 1/1000. Detects a band of approximately 49 kDa (predicted molecular weight: 49 kDa).
IHC-P	★★★★★ (4)	1/50 - 1/100.

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

Images



Western blot - Anti-c-Myc antibody (ab39688)

All lanes : Anti-c-Myc antibody (ab39688) at 1/500 dilution

Lane 1 : NIH/3T3 cell extracts
Lane 2 : NIH/3T3 cell extracts with synthesized peptide

Lysates/proteins at 40 µg per lane.

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

Blocking buffer: 5% (w/v) non-fat dry milk in TBST.

Primary antibody dilution buffer: 5%(w/v)non-fat dried milk,0.1% (v/v), Tween-20 in TBST.

Secondary antibody dilution buffer: 5%(w/v)non-fat dried milk,0.1% (v/v),Tween-20 in TBST.

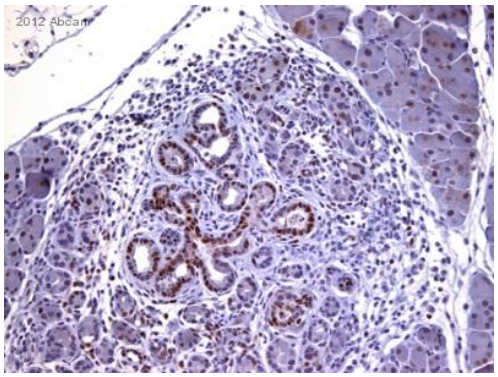
12% SDS gel. Nitrocellulose membrane.

Blocking: Room temperature for 2 hours or overnight at 4°C. Then wash 3x for 5 minutes with 0.05% blocking buffer.

Primary antibody incubation: diluted in TBST at 1/500. Incubate overnight with 4 degrees shaking. Then, in 0.05% TBST, wash membrane 3-4 times for 10min.

Secondary antibody incubation: diluted in TBST at 1/2000. Incubate 37°C for 1 hour. Then, in 0.05% TBST, wash membrane 3-4 times for 10min.

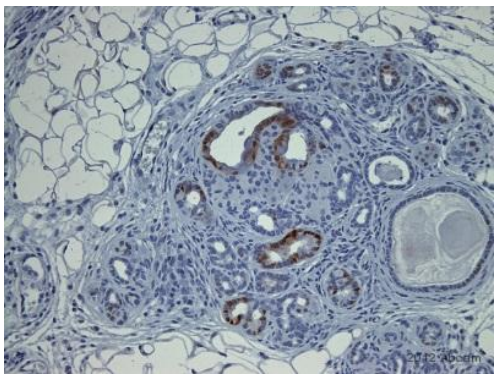
ECL development.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-c-Myc antibody (ab39688)

This image is courtesy of an anonymous abreview.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of mouse pancreatic cancer tissue sections labeling c-Myc with ab39688 at 1/50 dilution. Tissue was fixed in paraformaldehyde and permeabilized with TBST. Heat mediated antigen retrieval was performed using a citrate buffer. Tissue was blocked in 10% serum for 1 hour at 20°C. A polyclonal goat anti-rabbit biotin conjugated secondary antibody was used at 1/1000 dilution.



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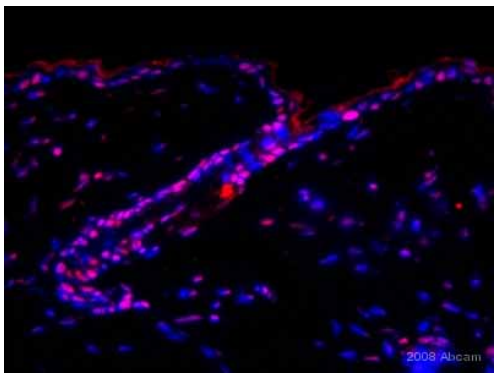
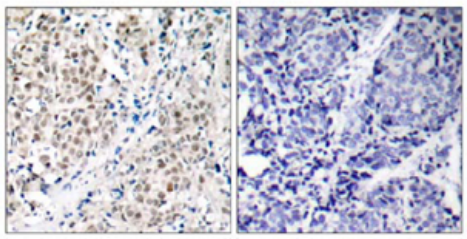


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-c-Myc antibody (ab39688)

This image is courtesy of an anonymous Abreview

ab39688 staining P22 mouse dorsal skin tissue sections by IHC-P. Sections were PFA fixed and subjected to heat mediated antigen retrieval in citrate buffer prior to blocking with 10% serum for 1 hour at RT. The primary antibody was diluted 1/20 and incubated with the sample for 24 hrs at 4°C. A biotinylated goat anti-rabbit antibody was used as the secondary in conjunction with streptavidin-Cy3®.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-c-Myc antibody (ab39688)

ab39688, at 1/50 dilution, staining Human c-Myc in breast carcinoma tissue in the absence (left) and presence (right) of blocking peptide by Immunohistochemistry, Paraffin embedded tissue.

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