abcam

ab232691

Anti-c-Myc (phospho S62) antibody [EPR17924] - BSA and Azide free

Recombinant | RabMAb | Advanced Validation

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR17924
Purification technique	Affinity purification Protein A
Concentration	0.987 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Human
Dilution info	-

Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

Dot

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

WB

Expected

Species	Mouse, Rat, Human
Dilution info	Use at an assay dependent concentration.
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	ab199376 - Rabbit monoclonal IgG (Low endotoxin, Azide free), is suitable for use as an isotype control with this antibody.

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	-
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

ChIC/CUT&RUN-seq

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information MYC pS62

Function Transcription factor that binds DNA in a non-specific manner, yet also specifically recognizes the core sequence 5'-CAC[GA]TG-3' (PubMed:24940000, PubMed:25956029). Activates the transcription of growth-related genes (PubMed:24940000, PubMed:25956029). Binds to the VEGFA promoter, promoting VEGFA production and subsequent sprouting angiogenesis (PubMed:24940000, PubMed:25956029). Regulator of somatic reprogramming, controls self-renewal of embryonic stem cells (By similarity). Functions with TAF6L to activate target gene expression through RNA polymerase II pause release (By similarity). Positively regulates transcription of HNRNPA1, HNRNPA2 and PTBP1 which in turn regulate splicing of pyruvate kinase PKM by binding repressively to sequences flanking PKM exon 9, inhibiting exon 9 inclusion and resulting in exon 10 inclusion and production of the PKM M2 isoform (PubMed:20010808).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab232691 is the carrier-free version of ab185656.

Conjugation ready
Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Compatibility
This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	C-Myc also known simply as Myc or MYC protein is a transcription factor with significant roles in cellular processes. Its estimated molecular weight is approximately 62 kDa. This protein is expressed in various tissues and cell types including common use in HEK (human embryonic kidney) cells for research. c-Myc functions by regulating transcription of genes involved in cell cycle progression apoptosis and cellular transformation.
Biological function summary	C-Myc is involved in regulating cell growth and proliferation. It forms part of the Myc/Max complex which binds to DNA to regulate gene expression. This activity affects cellular metabolism ribosome biogenesis and cell cycle entry emphasizing its regulation of cellular energy and stress response. Its expression levels critically govern normal cellular functions and homeostasis.
Pathways	C-Myc plays an important role in the cell cycle pathway and apoptosis regulation. Specifically c-Myc is associated with the Wnt signaling pathway which influences cellular proliferation and differentiation. It also interacts with other proteins like Cyclin D1 influencing cell cycle control. These interactions ensure c-Myc's involvement in regulating key processes related to cell proliferation and stability.
Associated diseases and disorders	C-Myc is tightly linked to cancer such as Burkitt's lymphoma and colon cancer. In these conditions c-Myc overexpression contributes to uncontrolled cell proliferation. Additionally c-Myc is associated with other oncogenic proteins like BCL2 in tumorigenesis highlighting its pivotal role in cancer development and progression. Understanding c-Myc's involvement in these diseases aids in the development of targeted therapeutic strategies.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

We do not recommend this combination. It is not covered by our product promise.

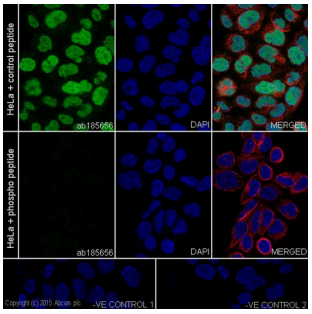
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

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9 product images



Immunocytochemistry/ Immunofluorescence - Anti-c-Myc (phospho S62) antibody [EPR17924] - BSA and Azide free (ab232691)

C-Myc (phospho S62) Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-c-Myc (phospho S62) antibody

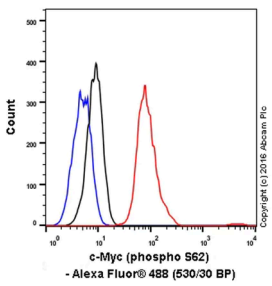
This ICC/IF data was generated using the same anti-phospho S62 c-Myc antibody clone, EPR17924, in a different buffer formulation (cat# ab185656).
Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HeLa (Human epithelial cells from cervix adenocarcinoma) cells labeling c-Myc (phospho S62) with ab185656 at 1/1000 dilution, followed by Goat anti-rabbit IgG (Alexa Fluor® 488) (ab150077) secondary antibody at 1/500 dilution (green).

Confocal image showing nuclear staining on HeLa cells.
The staining decreased after blocking with phospho peptide (100µg/ml) overnight.

The control peptide is a non-phospho peptide.

The nuclear counter stain is DAPI (blue).

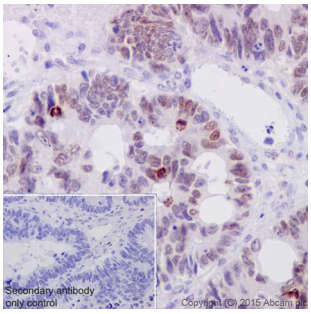
Tubulin is detected with ab7291 (anti-Tubulin mouse mAb) at 1/1000 dilution and ab150120 (AlexaFluor®594 Goat anti-Mouse secondary) at 1/500 dilution (red).
The negative controls are as follows:
-ve control 1: ab185656 at 1/1000 dilution followed by ab150120 (AlexaFluor®594 Goat anti-Mouse secondary) at 1/500 dilution.
-ve control 2: ab7291 (anti-Tubulin mouse mAb) at 1/1000 dilution followed by ab150077 (Alexa Fluor®488 Goat Anti-Rabbit IgG H&L) at 1/500 dilution.



Flow Cytometry (Intracellular) - Anti-c-Myc (phospho S62) antibody [EPR17924] - BSA and Azide free (ab232691)

C-Myc (phospho S62) Flow Cytometry (Intracellular) staining using rabbit Anti-c-Myc (phospho S62) antibody

Intracellular Flow Cytometry analysis of HeLa (human cervix adenocarcinoma) cells labeling c-Myc (phospho S62) with purified ab185656 at 1/150 dilution (red). The secondary antibody was Goat anti rabbit IgG (Alexa Fluor® 488) at 1/2000 dilution. A Rabbit monoclonal IgG (Black) was used as the isotype control and cells without incubation with primary antibody and secondary antibody (Blue) were used as unlabeled control.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab185656).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-c-Myc (phospho S62) antibody [EPR17924] - BSA and Azide free (ab232691)

C-Myc (phospho S62) Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-c-Myc (phospho S62) antibody

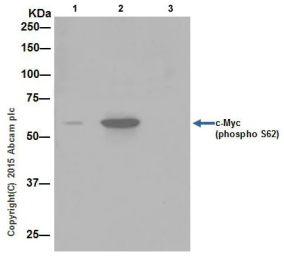
This IHC data was generated using the same anti-phospho S62 c-Myc antibody clone, EPR17924, in a different buffer formulation (cat# ab185656).
Immunohistochemical analysis of paraffin-embedded Human endometrium cancer tissue labeling c-Myc (phospho S62) with ab185656 at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) secondary antibody at 1/500 dilution.

Nuclear staining on cancer cells of Human endometrial cancer is observed.

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

Heat mediated antigen retrieval was performed with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunoprecipitation - Anti-c-Myc (phospho S62) antibody [EPR17924] - BSA and Azide free (ab232691)

c-Myc (phospho S62) was immunoprecipitated from 1mg of HeLa (Human epithelial cells from cervix adenocarcinoma) whole cell lysate treated with 200nM TPA for 10 minutes with ab185656 at 1/50 dilution.
Western blot was performed from the immunoprecipitate using ab185656 at 1/1000 dilution.

VeriBlot for IP Detection Reagent (HRP) (ab131366) was used for detection at 1/1500 dilution.

Lane 1: HeLa whole cell lysate treated with 200nM TPA for 10 minutes,10 µg (Input).

Lane 2: ab185656 IP in HeLa whole cell lysate treated with 200nM TPA for 10 minutes.

Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab185656 in HeLa whole cell lysate treated with 200nM TPA for 10 minutes.

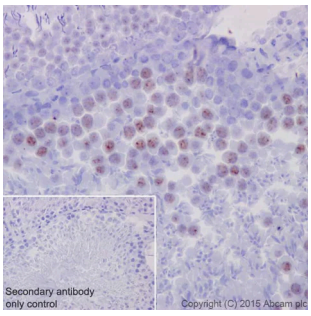
Blocking and dilution buffer and concentration: 5% NFDM/TBST.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab185656).
All lanes:
Immunoprecipitation - Anti-c-Myc (phospho S62) antibody [EPR17924] (ab185656)

Predicted band size: 48 kDa

Observed band size: 58 kDa

Exposure time: 5s



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-c-Myc (phospho S62) antibody [EPR17924] - BSA and Azide free (ab232691)

C-Myc (phospho S62) Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-c-Myc (phospho S62) antibody

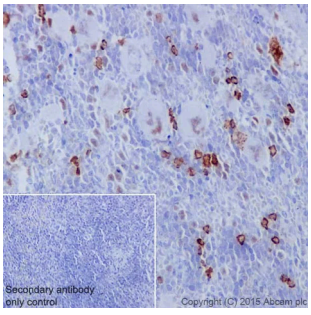
Immunohistochemical analysis of paraffin-embedded Rat testis tissue labeling c-Myc (phospho S62) with ab185656 at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) secondary antibody at 1/500 dilution.
Nuclear staining on rat testis is observed.

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab185656).

Heat mediated antigen retrieval was performed with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-c-Myc (phospho S62) antibody [EPR17924] - BSA and Azide free (ab232691)

C-Myc (phospho S62) Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-c-Myc (phospho S62) antibody

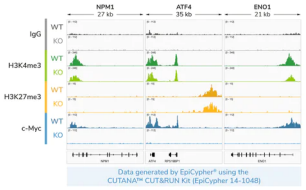
Immunohistochemical analysis of paraffin-embedded Mouse spleen tissue labeling c-Myc (phospho S62) with ab185656 at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) secondary antibody at 1/500 dilution.
Nuclear and cytoplasmic staining on mouse spleen is observed.

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab185656).

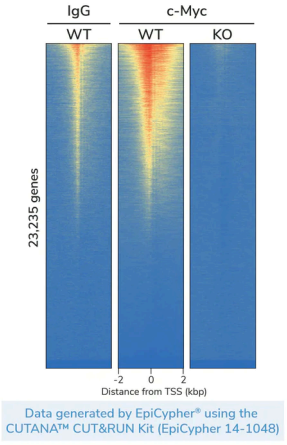
Heat mediated antigen retrieval was performed with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



ChIC/CUT&RUN sequencing - Anti-c-Myc (phospho S62) antibody [EPR17924] - BSA and Azide free (ab232691)

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab185656).

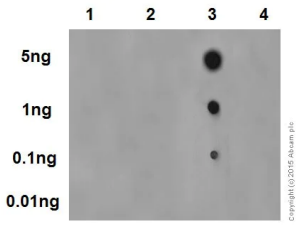
CUT&RUN profiling with c-Myc antibody reveals the expected genomic enrichment pattern in wild-type (WT) cells, which is substantially reduced in MYC knockout (KO) cells. Representative genome browser tracks show CUT&RUN data generated using the CUTANA™ CUT&RUN Kit (EpiCypher 14-1048) with c-Myc antibody (Abcam ab185656, 0.5 µg). 500,000 HEK293T WT or KO (Abcam ab256500) cells were used per reaction. IgG, H3K4me3, and H3K27me3 antibodies were included as controls to assess non-specific background, active promoters, and repressed chromatin, respectively. Libraries were prepared using the CUTANA™ CUT&RUN Library Prep Kit (EpiCypher 14-1001). Sequencing was performed with paired-end 50 bp reads, and data were processed on CUTANA™ Cloud (cloud.epicypher.com) by alignment to the hg38 genome. Images were generated using Integrative Genomics Viewer (IGV, Broad Institute).



ChIC/CUT&RUN sequencing - Anti-c-Myc (phospho S62) antibody [EPR17924] - BSA and Azide free (ab232691)

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab185656).

CUT&RUN profiling with c-Myc antibody demonstrates robust genome-wide enrichment in wild-type (WT) cells, which is markedly diminished in MYC knockout (KO) cells. Heatmaps of genome-wide signal flanking annotated transcription start sites (TSSs, +/- 2 kbp) display CUT&RUN data generated using the CUTANA™ CUT&RUN Kit (EpiCypher 14-1048) with c-Myc antibody (Abcam ab185656, 0.5 µg). 500,000 HEK293T WT or KO (Abcam ab256500) cells were used per reaction. IgG antibody was included as a negative control to assess non-specific background. Libraries were prepared using the CUTANA™ CUT&RUN Library Prep Kit (EpiCypher 14-1001). Sequencing was performed with paired-end 50 bp reads, and data were processed on CUTANA™ Cloud (cloud.epicypher.com) by alignment to the hg38 genome. Heatmaps were generated using deepTools (Ramírez et al., Nucleic Acids Res. 2014; PMID: 24799436). Row-linked data are ranked by intensity relative to c-Myc WT, with red indicating high localized enrichment and blue denoting background. Validated antibodies show genome-wide enrichment above IgG background consistent with c-Myc binding in WT cells and near complete loss of signal in KO cells.



Dot Blot - Anti-c-Myc (phospho S62) antibody [EPR17924] - BSA and Azide free (ab232691)

Dot blot analysis of c -Myc (phospho T58) peptide (Lane 1), c-Myc non-phospho peptide (a control peptide for c-Myc phospho T58) (Lane 2), c-Myc (phospho S62) peptide (Lane 3), and c-Myc non-phospho peptide (a control peptide for c-Myc phospho S62) (Lane 4), labeled using ab185656 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated secondary antibody at 1/1000 dilution.
Blocking/Dilution buffer: 5% NFDM/TBST.

Lanes 1, 2 and 4 are control peptides, lane 3 contains the immunogen peptide.

Exposure time=3 minutes.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab185656).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.