abcam

ab190560

Alexa Fluor® 647 Anti-c-Myc antibody [Y69]

Anti-c-Myc antibody [Y69] - Alexa Fluor® 647 conjugated (ab190560) is a rabbit recombinant monoclonal antibody detecting c-Myc in **ICC/IF** and **Flow Cyt (Intra)**. Suitable for **Human** and **Mouse**.

- KO validated for confirmed specificity
- Biophysical QC for unrivalled batch-batch consistency

Recombinant | RabMAb | KO Validated

Key facts

Isotype	IgG
Host species	Rabbit
Conjugation	Alexa Fluor® 647
Excitation/Emission	Ex: 650nm, Em: 665nm
Storage buffer	pH: 7.4 Preservative: 0.02% Sodium azide Constituents: PBS, 30% Glycerol (glycerin, glycerine), 1% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	Y69
Purification technique	Affinity purification Protein A
Specificity	This antibody is specific for endogenous c-Myc. It does not detect Myc tag. Expression levels of the target protein vary with sample type and some optimization may be required.
Dissociation constant	3.8×10^{-12} M
Concentration	0.5 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Tested

Species	Human
Dilution info	1/100
Notes	-

Expected

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

Not recommended

Species	Mouse
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/50 - 1/5000
Notes	-

Species	Mouse
Dilution info	1/50
Notes	-

Expected

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

IHC-P

Expected

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

Not recommended

Species	Human, Mouse
Dilution info	-
Notes	-

Target data

See full target information MYC

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 duration	1-2 weeks

Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle, Stable for 12 months at -20°C, Store in the dark

Notes

What is this antibody validated in?
Alexa Fluor® 647 Anti-c-Myc antibody [Y69] (ab190560) is a rabbit recombinant monoclonal antibody and is validated for use in Immunocytochemistry/immunofluorescence (ICC/IF) in Human samples, and and Flow Cyt (Intra) in Human and Mouse samples.

Related products
Antibody clone Y69 is also available pre-conjugated to a variety of labels for your convenience – Anti-c-Myc Alexa Fluor® 647 [Y69] (ab190560).

Specificity confirmed
The specificity of Alexa Fluor® 647 Anti-c-Myc antibody [Y69] (ab190560) has been confirmed by Immunocytochemistry testing in MYC Knockout HEK-293 cell line, ab256500.

Other related products
We have a range of other formats of antibody clone [Y69] also available for your convenience: ab32072, Carrier free - ab168727, Alexa Fluor® 488 - ab190026, Alexa Fluor® 647 - ab190560, Alexa Fluor® 594 - ab201775, Alexa Fluor® 555 - ab201780, HRP - ab205818, FITC - ab223913

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Alexa Fluor® is a registered trademark of Molecular Probes, Inc, a Thermo Fisher Scientific Company. The Alexa Fluor® dye included in this product is provided under an intellectual property license from Life Technologies Corporation. As this product contains the Alexa Fluor® dye, the purchase of this product conveys to the buyer the non-transferable right to use the purchased product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). As this product contains the Alexa Fluor® dye the sale of this product is expressly conditioned on the buyer not using the product or its components, or any materials made using the product or its components, in any activity to generate revenue, which may include, but is not limited

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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.

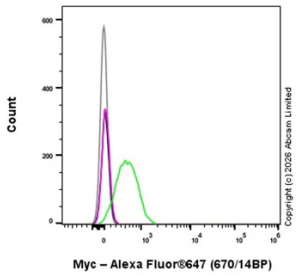
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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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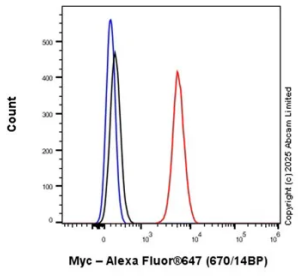
5 product images



Flow Cytometry (Intracellular) - Alexa Fluor® 647 Anti-c-Myc antibody [Y69] (ab190560)

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

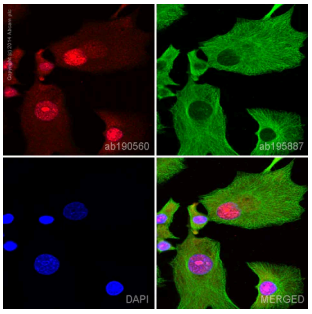
Flow cytometric overlay histogram of 4% paraformaldehyde-fixed, 90% methanol permeabilised parental HEK293T (human embryonic kidney epithelial cell) (EDWT04) cells (green and black histograms) and MYC KO HEK293T (MYC knockout HEK293T) cells (magenta and grey histograms) labelling c-Myc with ab190560 at 1/5000 dilution (0.01 µg) (green and magenta histograms). Isotype control antibody (black and grey histograms) was Rabbit IgG monoclonal [EPR25A] - Isotype Control Alexa Fluor® 647 (ab199093) used at the same concentration and conditions as the primary antibody.



Flow Cytometry (Intracellular) - Alexa Fluor® 647 Anti-c-Myc antibody [Y69] (ab190560)

C-Myc Flow Cytometry (Intracellular) staining of HeLa (human cervical adenocarcinoma epithelial cell) cells using rabbit Anti-c-Myc antibody

Flow cytometric overlay histogram of 4% paraformaldehyde-fixed, 90% methanol permeabilised HeLa (human cervical adenocarcinoma epithelial cell) cells labelling c-Myc with ab190560 at 1/50 dilution (1 µg) (red line). Isotype control antibody (black line) was Rabbit IgG monoclonal [EPR25A] - Isotype Control Alexa Fluor® 647 (ab199093) used at the same concentration and conditions as the primary antibody. Unlabelled sample (blue line) was also used as a control.



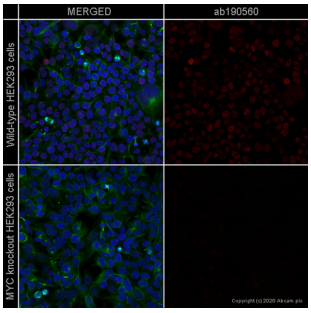
Immunocytochemistry/ Immunofluorescence - Alexa Fluor® 647 Anti-c-Myc antibody [Y69] (ab190560)

C-Myc Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-c-Myc antibody

ab190560 staining c-Myc in panc1 cells. The cells were fixed with 100% methanol (5 min), permeabilized in 0.1% Triton X-100 for 5 minutes and then blocked in 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated with ab190560 at a working dilution of 1 in 100 (shown in red) and ab195887, Mouse monoclonal [DM1A] to alpha Tubulin (Alexa Fluor® 488, shown in green) at 2µg/ml overnight at +4°C. Nuclear DNA was labelled in blue with DAPI.

This product also gave a positive signal in 4% formaldehyde (10 min) fixed panc1 cells under the same testing conditions.

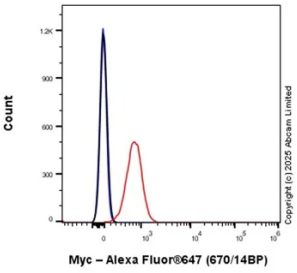
Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).



Immunocytochemistry/ Immunofluorescence - Alexa Fluor® 647 Anti-c-Myc antibody [Y69] (ab190560)

C-Myc Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-c-Myc antibody

ab190560 staining c-Myc in wild-type HEK293 cells (top panel) and MYC knockout HEK293 cells (ab256500) (bottom panel). The cells were fixed with 4% paraformaldehyde (10 min) then permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated with ab190560 at 1/5000 dilution and ab195887 (Mouse monoclonal to alpha Tubulin - Alexa Fluor® 488) at 1/250 dilution overnight at 4°C. Nuclear DNA was labelled in blue with DAPI.
Image was taken with a confocal microscope (Leica-Microsystems TCS SP8).



Flow Cytometry (Intracellular) - Alexa Fluor® 647 Anti-c-Myc antibody [Y69] (ab190560)

C-Myc Flow Cytometry (Intracellular) staining of RAW 264.7 (mouse Abelson murine leukemia virus-induced tumor macrophage) cells using rabbit Anti-c-Myc antibody

Flow cytometric overlay histogram of 4% paraformaldehyde-fixed, 90% methanol permeabilised RAW 264.7 (mouse Abelson murine leukemia virus-induced tumor macrophage) cells labelling c-Myc with ab190560 at 1/50 dilution (1 µg) (red line). Isotype control antibody (black line) was Rabbit IgG monoclonal [EPR25A] - Isotype Control Alexa Fluor® 647 (ab199093) used at the same concentration and conditions as the primary antibody. Unlabelled sample (blue line) was also used as a control.

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