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MYC Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1559a

Product Information

Application	WB, E
Primary Accession	P01106
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	7E10
Isotype	IgG1
Calculated MW	50565
Description	The protein encoded by this gene is a multifunctional, nuclear phosphoprotein that plays a role in cell cycle progression, apoptosis and cellular transformation. It functions as a transcription factor that regulates transcription of specific target genes. Mutations, overexpression, rearrangement and translocation of this gene have been associated with a variety of hematopoietic tumors, leukemias and lymphomas, including Burkitt lymphoma. There is evidence to show that alternative translation initiations from an upstream, in-frame non-AUG (CUG) and a downstream AUG start site result in the production of two isoforms with distinct N-termini. The synthesis of non-AUG initiated protein is suppressed in Burkitt's lymphomas, suggesting its importance in the normal function of this gene. (provided by RefSeq).
Immunogen	Purified recombinant fragment of human MYC expressed in E. Coli.
Formulation	Ascitic fluid containing 0.03% sodium azide.

Additional Information

Gene ID	4609
Other Names	Myc proto-oncogene protein, Class E basic helix-loop-helix protein 39, bHLHe39, Proto-oncogene c-Myc, Transcription factor p64, MYC, BHLHE39
Dilution	WB~~1/500 - 1/2000 E~~1/10000
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	MYC Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	MYC
Synonyms	BHLHE39
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).
Cellular Location	Nucleus, nucleoplasm. Nucleus, nucleolus. Nucleus. Cytoplasm Chromosome. Note=Association with chromatin is reduced by hyperphosphorylation (PubMed:30158517) Localization to the nucleolus is dependent on HEATR1 (PubMed:38225354)

References

1. Mol Cell. 2009 Sep 11;35(5):610-25. 2. Clin Immunol. 2009 Dec;133(3):324-32.

Images

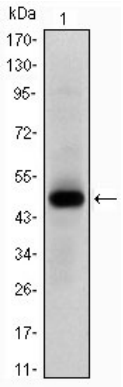


Figure 1: Western blot analysis using MYC mAb against human MYC (AA:214-387) recombinant protein. (Expected MW is 44.7 kDa)

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