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MYC Antibody (S373)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1985a

Product Information

Application	WB, E
Primary Accession	P01106
Other Accession	P09416, P01108, Q2HJ27
Reactivity	Human, Rat, Mouse
Predicted	Bovine, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB11189
Calculated MW	50565
Antigen Region	351-380

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
Target/Specificity	This MYC antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 351-380 amino acids from human MYC.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	MYC Antibody (S373) 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)

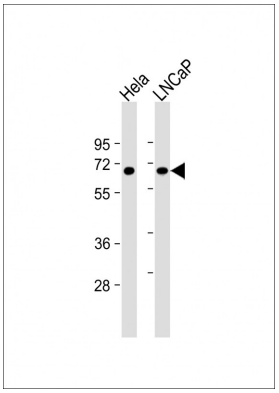
Background

MYC 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 the gene encoding MYC 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.

References

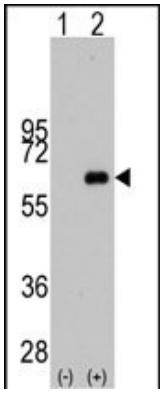
Lima,F.P., Am. J. Clin. Pathol. 129 (5), 723-726 (2008)
Ida,C., Biosci. Biotechnol. Biochem. 72 (3), 868-871 (2008)
Iijima,S., Eur. J. Biochem. 206 (2), 595-603 (1992)

Images



All lanes : Anti-MYC Antibody at 1:1000 dilution Lane 1: Hela whole cell lysate Lane 2: LNCaP whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 49 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Western blot analysis of MYC (arrow) using rabbit polyclonal MYC Antibody (S373) (Cat.#AP1985a). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the MYC gene (Lane 2) (Origene Technologies).



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