10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

c-Myc Oncoprotein Antibody - With BSA and Azide

Mouse Monoclonal Antibody [Clone MYC909]
Catalog # AH11939

Product Information

Application	IHC, IF, FC
Primary Accession	P01106
Other Accession	4609, 202453
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG1, kappa
Clone Names	MYC909
Calculated MW	50565

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
Application Note	IHC~~1:100~500 IF~~1:50~200 FC~~1:10~50
Storage	Store at 2 to 8°C.Antibody is stable for 24 months.
Precautions	c-Myc Oncoprotein Antibody - With BSA and Azide 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)

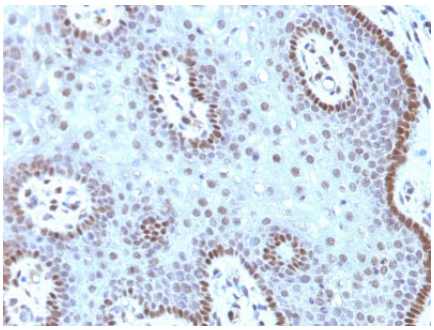
Background

It recognizes a transcription factor of 64-67kDa, identified as c-myc. This MAb shows no cross-reaction with v-myc. c-myc is involved in the control of cell proliferation and differentiation and is amplified and/or over-expressed in a variety of tumors. Over-expression of c-myc protein occurs frequently in luminal cells of prostate intraepithelial neoplasia as well as in most primary carcinomas and metastatic disease. Rearrangement of the MYC gene is found in 3% to 16% of diffuse large B-cell lymphoma (DLBCLā€™s) and in nearly 100% of Burkitt lymphomas (BL). Identifying MYC status is important in establishing final diagnosis of DLBCL, BL, or B-cell lymphoma, with features intermediate between DLBCL and BL as well as in differential diagnoses of the lymphomas.

References

Evan GI, et. al. Molecular and Cellular Biology, 1985, 5(12):3610-6

Images



Formalin-fixed, paraffin-embedded human Cervical Carcinoma stained with c-myc Monoclonal Antibody (MYC909).