ARG62341
anti-Myc tag antibody [Myc.A7]

Package: 100 µg
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody [Myc.A7] recognizes Myc tag
Tested Reactivity	Other
Tested Application	Dot, ELISA, ICC/IF, IP, WB
Specificity	Recognizes the N-terminal or C-terminal Myc-tagged fusion proteins
Host	Mouse
Clonality	Monoclonal
Clone	Myc.A7
Isotype	IgG1
Target Name	Myc tag
Immunogen	EQKLISEEDL (Myc) synthetic peptide conjugated to KLH.
Conjugation	Un-conjugated
Alternate Names	c-Myc; MRTL; MYCC; Class E basic helix-loop-helix protein 39; Proto-oncogene c-Myc; bHLHe39; Myc proto-oncogene protein; Transcription factor p64

Application Instructions

Application table

Application	Dilution
Dot	Assay-dependent
ELISA	Assay-dependent
ICC/IF	1:500-2000
IP	Assay-dependent
WB	1:1000-1:3000

Application Note: The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

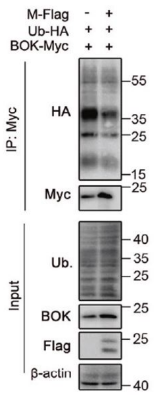
Form	Liquid
Purification	Protein A Purified
Purification Note	Protein A affinity chromatography from mouse ascites fluid.
Buffer	10mM PBS (pH 7.2) and 0.05% Sodium azide
Preservative	0.05% Sodium azide
Concentration	1 mg/ml

Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	MYC
Gene Full Name	v-myc avian myelocytomatosis viral oncogene homolog
Background	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, Jul 2008]
Function	Transcription factor that binds DNA in a non-specific manner, yet also specifically recognizes the core sequence 5'-CAC[GA]TG-3'. Activates the transcription of growth-related genes. [UniProt]
Research Area	Cancer antibody; Controls and Markers antibody; Developmental Biology antibody; Gene Regulation antibody; Signaling Transduction antibody
PTM	Phosphorylated by PRKDC. Phosphorylation at Ser-329 by PIM2 leads to the stabilization of MYC (By similarity). Phosphorylation at Ser-62 by CDK2 prevents Ras-induced senescence. Phosphorylated at Ser-62 by DYRK2; this primes the protein for subsequent phosphorylation by GSK3B at Thr-58. Phosphorylation at Thr-58 and Ser-62 by GSK3 is required for ubiquitination and degradation by the proteasome. Ubiquitinated by the SCF(FBXW7) complex when phosphorylated at Thr-58 and Ser-62, leading to its degradation by the proteasome. In the nucleoplasm, ubiquitination is counteracted by USP28, which interacts with isoform 1 of FBXW7 (FBW7alpha), leading to its deubiquitination and preventing degradation. In the nucleolus, however, ubiquitination is not counteracted by USP28, due to the lack of interaction between isoform 4 of FBXW7 (FBW7gamma) and USP28, explaining the selective MYC degradation in the nucleolus. Also polyubiquitinated by the DCX(TRUSS) complex. Ubiquitinated by TRIM6 in a phosphorylation-independent manner (By similarity).

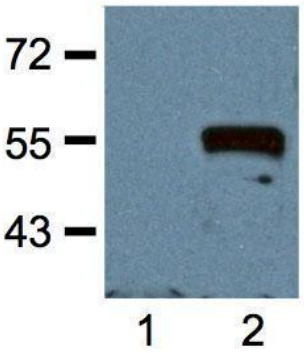
Images



ARG62341 anti-Myc tag antibody [Myc.A7] IP image

Immunoprecipitation: 293T lysate immunoprecipitated with ARG62341 anti-Myc tag antibody [Myc.A7].

From Yang Y et al. Cell Death Differ- (2022), doi: 10.1038/s41418-022-00928-x, Fig. 3. G.



ARG62341 anti-Myc tag antibody [Myc.A7] WB image

Western Blot: HEK293 cells transfected with Myc-tagged protein vector; (1) untransfected and (2) transfected stained with ARG62341 anti-Myc tag antibody [Myc.A7] at 1:1000 (1 µg/mL) dilution