ALPHA DIAGNOSTIC INTERNATIONAL

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Product Specification Sheet

Human c-Myc Antibodies and protein controls

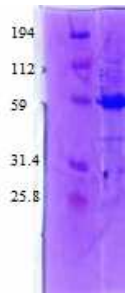
□ **Cat. MYC12-M**	Mouse monoclonal Anti-human c-myc protein IgG	**SIZE**: 100 ug
□ **Cat. MYC17-C**	Recombinant purified human c-myc protein control for Western	**SIZE**: 100 ul

Myc gene was first discovered in Burkitt's lymphoma patients. In Burkitt's lymphoma, cancer cells show chromosomal translocations, in which Chromosome 8 is frequently involved. Cloning the break point of the fusion chromosomes revealed a gene that was similar to myelocytomatosis viral oncogene (v-Myc). The new cellular gene was named c-Myc. Human c-myc (accession # P01106; 439-aa, chromosome 8q24) is a protooncogene, which is overexpressed in a wide range of human cancers. When it is specifically-mutated, or overexpressed, it increases cell proliferation and functions as an oncogene. It is a transcription factor that regulates expression of a great number of genes through binding on Enhancer Box sequences (E-boxes) and recruiting histone acetyltransferases (HATs). Myc belongs to Myc family of transcription factors, which also includes N-Myc and L-Myc genes. Myc-family transcription factors contain the bHLH/LZ (basic Helix-Loop-Helix Leucine Zipper) domain.

An epitope located within amino acids 410-419 (EQKLISEEDL) of human c-Myc has been widely used as a tag in many expression vectors, enabling the expression of proteins as c-Myc tag fusion proteins. Epitope tags antibodies provide a method to immunolocalize the myc-fusion gene products in a variety of cell types, to study the topology of proteins and protein complexes, and to identify associated proteins. In addition, they allow characterization of newly identified, low abundance or poorly immunogenic proteins when protein specific antibodies are not available. It is also possible to use ant-tag antibodies for the purification of fusion proteins. Purity of fusion proteins can be followed by Tag-antibodies. Very often, fusion proteins are directly injected into animals to generate antibodies. Some fusion tags can be removed later by treatment with enzymes to generate tag-free recombinant proteins.

Source of Antigen and Antibodies

Antigen	Human c-myc peptide
Ab Host/type	Mouse, monoclonal, aff pure IgG # MYC12-M
2-Ab	**Goat Anti-mouse IgG-HRP conjugate** Cat # 40320 (AP, biotin, FITC conjugates also available)
-ve	Cat # 20008-1, Mouse (non-immune) Serum IgG, purified, suitable for ELISA, Western, IHC as –ve control



Human c-myc protein (full length gene accession # P01106) was expressed as fusion protein (His-tag-Myc) in E. Coli and purified (>95%). For Western blot +ve protein control (Cat # MYC17-C) is supplied in SDS-PAGE sample buffer (reduced) in powder forms. Reconstitute the vial with 100 ul of 1X sample buffer (reduced). Aliquot the protein in suitable size and store at -20oC or below. Heat the protein once before using on gels. Load 10 ul/lane of MYC17-C for good visibility with antibody Cat # MYC12-M. SDS may crystallize in cold conditions. It should redissolve by warming before taking it from the stock. It should be heated once prior to loading on gels. If the product has been stored for several weeks, then it may be preferable to add 5 ul of fresh 2x sample buffer (reducing) per 10 ul of the MYC16-C solution prior to heating and loading on gels. This preparation is not biologically active. It is not suitable for ELISA or other applications where native protein is required. This preparation is intended for qualitative purpose and not to serve as standard of known concentration. Do not freeze, thaw, or heat repeatedly.

Form & Storage of Antibodies/Peptide Control

Affinity pure IgG

□ 100 ug/100ul □ 50 ug/50 ul
□ solution □ lyophilized powder
Buffer: PBS, pH 7.4, and 0.2% BSA
Reconstitute powder in PBS at 1 mg/ml

Storage

Short-term: unopened, undiluted liquid vials for less than a week at 4oC and powder at -20oC.

Long-term: at –20C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

Stability: 6-12 months at –20oC or below.
Shipping: 4oC for solutions and room temp for powder.

Recommended Usage

Western Blotting (1-2 ug/ml using Chemiluminescence technique). Antibodies react with native and denatured myc-tag fusion protein or full length c-myc protein (MYC16-C). containing proteins. The antibodies detect the myc-tagged fusion proteins contain the tag at either the N or C-terminus. Full length c-myc contains T7-tag and His-tag at the N-terminus and migrates ~65 kda. MYC16-C control can be used as a control for antibodies to mc-myc protein or to anti-c-myc fusion tags.

ELISA : 01-1 ug/ml using 50-100 ng control antigen/well).

Histochemistry & Immunofluorescence: not tested. We recommend the use of affinity pure antibody at 2-5 ug/ml.

General References:

Gazin C et al (1984) EMBO J 3, 383-387; Colby WW (1983) Nature 301, 722-725; Rabbitts TH (1983) Nature 306, 760-765; Watson DK (1983) PNAS 80, 3642-3645

*This product is for In vitro research use only.

Other Fusion tag antibodies available from ADI

Anti-MBP, Poly-His, GST, beta-Gal, VSV-G, Flag, HA-tag, **Western Blot Recycling Kit (Strips blots in 5 minutes)** and re-use the same blot with multiple antibodies

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