

Product datasheet for **MC216121**

Myc (NM_010849) Mouse Untagged Clone

Product data:

| | |
|---------------------------|---|
| Product Type: | Expression Plasmids |
| Product Name: | Myc (NM_010849) Mouse Untagged Clone |
| Tag: | Tag Free |
| Symbol: | Myc |
| Synonyms: | AU016757; bHLHe3; bHLHe39; Myc2; N; Niard; Nird |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-Entry (PS100001) |
| E. coli Selection: | Kanamycin (25 ug/mL) |



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Fully Sequenced ORF: >MC216121 representing NM_010849

Red=Cloning site Blue=ORF

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGCATCGCC**

CTGGATTTCTTTGGCGTTGGAACCCCGCAGACAGCCACGACGATGCCCTCAACGTGAACCTCACCA
ACAGGAACTATGACCTCGACTACGACTCCGTACAGCCCTATTTTCATCTGCGACGAGGAAGAGAATTTCTA
TACCAGCAACAGCAGAGCGAGCTGCAGCCGCCGCGCCAGTGAGGATATCTGGAAGAAATTCGAGCTG
CTTCCCACCCCGCCCTGTCCCCGAGCCGCCGCTCCGGGCTCTGCTCTCCATCCTATGTTGCGGTCGCTA
CGTCTTCTCCCAAGGGAAGACGATGACGGCGCGGTGGCAACTTCTCCACCGCGATCAGCTGGAGAT
GATGACCGAGTTACTTGGAGGAGACATGGTGAACCAGAGCTTCATCTGCGATCCTGACGACGAGACCTTC
ATCAAGAACATCATCATCCAGGACTGTATGTGGAGCGTTTCTCAGCCGCTGCCAAGCTGGTCTCGGAGA
AGCTGGCCTCCTACCAGGCTGCGCGAAAGACAGCACCAGCCTGAGCCCCGCCGCGGCACAGCGTCTG
CTCCACCTCCAGCCTGTACCTGCAGGACCTCACCGCCCGCGCTCCGAGTGCATTGACCCCTCAGTGGTC
TTCCCTACCCGCTCAACGACAGCAGCTCGCCAAATCCTGTACCTCGTCCGATTCCACGGCCTTCTCTC
CTTCTCGGACTCGCTGTCTCCGAGTCTCCACGGGCCAGCCCTGAGCCCTAGTGCTGCATGA
GGAGACACCGCCACCACCAGCAGCGACTCTGAAGAAGAGCAAGAAGATGAGGAAGAAATGATGTGGTG
TCTGTGGAGAAGAGGCAAACCCCTGCCAAGAGGTCCGGAGTCGGGCTCATCTCCATCCCGAGGCCACAGCA
AACCTCCGACAGCCCACTGGTCTCAAGAGGTGCCACGTCTCCACTCACCAGCACAACTACGCCGACC
CCCCTCCACAAGGAAGGACTATCCAGCTGCCAAGAGGGCCAAGTTGGACAGTGGCAGGGTCTGAAGCAG
ATCAGCAACAACCGCAAGTGCTCCAGCCCCAGTCTCAGACACGGAGGAAAACGACAAGAGGCGGACAC
ACAACGTCTTGGAACTCAGAGGAGGAACGAGCTGAAGCGCAGCTTTTTTGCCCTGCGTGACCAGATCCC
TGAATTGGAAAACAACGAAAAGGCCCAAGGTAGTGATCCTCAAAAAGCCACCGCTACATCCTGTCC
ATTCAAGCAGACGACACAAGCTCACCTCTGAAAAGGACTTATTGAGGAAACGACGAGAACAGTTGAAAC
ACAAACTCGAACAGCTTCGAAACTCTGGTGCATAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI

ACCN: NM_010849

Insert Size: 1365 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [BC138931](#), [AAI38932](#)

RefSeq Size: 1489 bp

RefSeq ORF: 1365 bp

Locus ID: 17869

Cytogenetics: 15 26.19 cM

Gene Summary: 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, in human. 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, in human and mouse. Under conditions of stress, such as high cell densities and methionine deprivation, there is a specific and dramatic increase in the synthesis of the non-AUG initiated protein, suggesting its importance in times of adversity. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Apr 2010]
Transcript Variant: This variant (1) represents the longer transcript and encodes two isoforms due to the use of alternative translation initiation codons. The longer isoform (a, also known as c-Myc 1) is derived from a non-AUG (CUG) start codon, while a shorter isoform (b, also known as c-Myc 2) is derived from a downstream AUG start codon. The longer isoform (a) is represented in this RefSeq. CCDS Note: This CCDS ID represents the longest c-Myc isoform, also known as c-Myc 1. Evidence in the literature, including in PMIDs 1628829, 3277717 and 9032273, shows that the transcript can produce multiple isoforms due to the use of alternative translation initiation codons. This transcript variant is supported by several transcripts, including the long mRNAs X01023.1, AK145084.1 and BC138932.1. This isoform initiates translation at a non-AUG (CUG) start codon that is well-conserved. Alternative translation initiation at a downstream AUG start codon also produces a shorter isoform, known as c-Myc 2. The shorter isoform is represented by CCDS 49615.1.