

Product datasheet for **MC203580**

Nlk (NM_008702) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Nlk (NM_008702) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Nlk
Synonyms:	A1194375
Mammalian Cell Selection:	Neomycin
Vector:	PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >BC057667
 TTTTTTTTCTTCTTATTTTATGTTCTTAACCTTTATTTTGACAACCCATACCCCTCCACACTCTCA
 CCCCCAAATCGAACACCCAAGATTGTCAAACCTGTCTGGATTGACCGATGAAGACATAAAGCCAGTTCCG
 CTCTATGTTTTTTGAGGTGGAGTGAGTGGTTTTCTTCATTTTTTTAAATGGCCAAATGACAGCTTGACC
 CAGTTTGTCTTCAATCAAAGGGCATTTTTTGAATGTCTTTTGGCACAAGAGCCAAACGCAAAAATG
 ATGGCGGCTTACAATGGCGGTACATCTGCAGCTGCAGCAGGTACCACCACCACCATCATACCACCTTC
 CACACCTTCTCCTCCTCACCTTACCACCACCACCCTCAACACCACCTTCATCCGGGTCCGGTGC
 TGCCGTACACCCAGTCCAGCAGCATACGTCTTCGGCAGCTGCGGCAGCCGCCGACAGCTGCAGCCGCA
 GCCATGTTAAACCTGGGCAACAACAGCCATATTTCCCATCCCCGGCACCCGGTCAAGCTCCTGGGCCAG
 CCGCAGCAGCCCCAGCTCAGGTACAGGCTGCTGCAGCTGTACAGTTAAGGCGCACCATCATCAGCACTC
 GCATCATCCGCAACAGCAGCTGGACATTGAGCCGGATAGACCAATTGGATATGGAGCCTTTGGCGTTGTC
 TGGTCAGTAACAGATCCAAGAGATGAAAGAGAGTAGCACTCAAAAAGATGCCAACGTCTTCCAGAATC
 TGGTCTCTTGCAAAGAGTCTCCGGGAATTGAAGATGTTGTGTTTTTTAAACATGATAATGACTCTC
 TGCCCTTGACATACTCCAACCTCCACACATTGACTATTTGAAGAAATATATGTTGTCACAGAATTGATG
 CAGAGTGATCTACATAAAATTATCGTCTCTCCTCAGCCACTCAGCTCGGATCATGTCAAAGTTTTCTTT
 ATCAGATTTTGCAGGTTTGAAATATCTCCATTAGCTGGCATTTCATCGAGACATTAAGCCAGGGAA
 CCTCCTTGTAACAGCAATTGTGTTCTAAAGATTTGTGATTTTGGATTGGCCAGAGTGGAGGAATTGGAT
 GAATCCCCTCATATGACTCAGGAAGTAGTTACTCAGTATTACCGGGCTCCGGAGATCCTGATGGGCAGCC
 GTCATTACAGCAATGCTATCGACATCTGGTCTGTCCGGTGCATCTTTCAGAGCTACTGGGCCGAAGAAT
 ATTGTTTCAGGCGCAGAGTCCCATTGAGGATTTGATCAGAGTCTGTTGGGCACACCATCACTG
 GAAGCAATGAGGACAGCTTGTGAAGTGCTAAGGCACACATACTCAGGGTCTCATAAACAGCCATCTC
 TTCCTGTGCTCTACACCTCTCCAGCCAGGCCACACATGAAGCTGTTACCTGCTTTCAGGATGTTGGT
 CTTTGATCCATCAAAAAGAATATCCGCTAAGGATGCCTTAGCCACCCCTACCTAGATGAAGGGCGGCTG
 AGATACCATACGTGTATGTGCAAGTGTGCTTTTCCACCTCAACGGGGAGAGTCTACACCAGTGACTTTG
 AGCCTGTACCAACCCCAAAATTTGATGACACCTTTGAGAAGAACCCTCAGCTCTGTCCGACAGGTTAAGA
 AATTATCCACCAGTTCATTCTGGAACAGCAGAAAGGAAACAGAGTGCCTCTCTGCATCAACCCGAGTCC
 GCTGCCTTTAAGAGCTTTATTAGTTCCACCGTCTCAGCCGCTGAGATGCCGCGTCTCCTCTGGTGT
 GGGAGTGACTGTGAAGACACTGTACTACTGAAGATGTAATGTAGCTTTCAGTGGAGTCTGGGATTTGCA
 ATTCTGGAGGGTAAATCATGCTGTACTGTAATTTTACTAATGAAGTTTTAAATTAACAACCACTACTTG
 TATGATATGAATAATATTTAGAAATGTTACTAGACTTTTAACTTGTAAAGTGGTTGTGCTTTTAGAAAA
 AAAAAAATATTTTACCAGAGTTGCACATGGTTAAAGAATTCAGTGCAGCTGTTGCCGCTCACCTCAGA
 ACAAAATGAAAATGAACCAAAATTTGGGCATTTGGGGTTTATGTTTTTATTTATTATTTTTTTAAT
 GAAGTAAGATTGTTACATGTATACACTCAGACACAGAGGACAGTCATACATTTTGATATTCGAGCCATT
 CCTAAAGATTAAGGGTTTTCTAAAATAAAGAATCTAGAAAGCTTGCCAGTGACCAATCATGGAGCCTCG
 TGAGCTAACTGTGGCCGTGCCTGGGGCATGGGCAGGAGGGGCCACCTAATGATGAAGCCAGTGATTGGCT
 TCTCATTAGAGCCGTGCTGGTGTGTGCGGTCTAACCTCCAATGCTGTGCGTAGAGAGAATGAGTTTG
 TGGCTAGGAGAACTAACCTCTGTTTCCCTTACCCGGTATAAATATATATACATATATATATTTAAT
 CTATTTTTATTAGAAGTTTTTCTGCTCTTCTTACATAAAAAAAAAAAAAAAAAA

Restriction Sites: RsrII-NotI

ACCN: NM_008702

Insert Size: 1584 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: [BC057667](#), [AAH57667](#)

RefSeq Size: 2572 bp

RefSeq ORF: 1584 bp

Locus ID: 18099

UniProt ID: [O54949](#)

Cytogenetics: 11 B5

Gene Summary: Serine/threonine-protein kinase that regulates a number of transcription factors with key roles in cell fate determination. Positive effector of the non-canonical Wnt signaling pathway, acting downstream of WNT5A, MAP3K7/TAK1 and HIPK2. Activation of this pathway causes binding to and phosphorylation of the histone methyltransferase SETDB1. The NLK-SETDB1 complex subsequently interacts with PPARG, leading to methylation of PPARG target promoters at histone H3K9 and transcriptional silencing. The resulting loss of PPARG target gene transcription inhibits adipogenesis and promotes osteoblastogenesis in mesenchymal stem cells (MSCs). Negative regulator of the canonical Wnt/beta-catenin signaling pathway. Binds to and phosphorylates TCF7L2/TCF4 and LEF1, promoting the dissociation of the TCF7L2/LEF1/beta-catenin complex from DNA, as well as the ubiquitination and subsequent proteolysis of LEF1. Together these effects inhibit the transcriptional activation of canonical Wnt/beta-catenin target genes. Negative regulator of the Notch signaling pathway. Binds to and phosphorylates NOTCH1, thereby preventing the formation of a transcriptionally active ternary complex of NOTCH1, RBPJ/RBPSUH and MAML1. Negative regulator of the MYB family of transcription factors. Phosphorylation of MYB leads to its subsequent proteolysis while phosphorylation of MYBL1 and MYBL2 inhibits their interaction with the coactivator CREBBP. Other transcription factors may also be inhibited by direct phosphorylation of CREBBP itself. Acts downstream of IL6 and MAP3K7/TAK1 to phosphorylate STAT3, which is in turn required for activation of NLK by MAP3K7/TAK1. Upon IL1B stimulus, cooperates with ATF5 to activate the transactivation activity of C/EBP subfamily members. Phosphorylates ATF5 but also stabilizes ATF5 protein levels in a kinase-independent manner (By similarity).
[UniProtKB/Swiss-Prot Function]