

Product datasheet for **RC208723L2V**

NLK (NM_016231) Human Tagged ORF Clone Lentiviral Particle

Product data:

| | |
|---------------------------|--|
| Product Type: | Lentiviral Particles |
| Product Name: | NLK (NM_016231) Human Tagged ORF Clone Lentiviral Particle |
| Symbol: | NLK |
| Mammalian Cell Selection: | None |
| Vector: | pLenti-C-mGFP (PS100071) |
| Tag: | mGFP |
| ACCN: | NM_016231 |
| ORF Size: | 1581 bp |
| ORF Nucleotide Sequence: | The ORF insert of this clone is exactly the same as(RC208723). |
| OTI Disclaimer: | The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info |
| OTI Annotation: | This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene. |
| RefSeq: | NM_016231.4 |
| RefSeq Size: | 3555 bp |
| RefSeq ORF: | 1584 bp |
| Locus ID: | 51701 |
| UniProt ID: | Q9UBE8 |
| Cytogenetics: | 17q11.2 |
| Domains: | pkinese, TyrKc, S_TKc |
| Protein Families: | Druggable Genome, Protein Kinase, Transcription Factors |
| Protein Pathways: | Adherens junction, MAPK signaling pathway, Wnt signaling pathway |



[View online »](#)

MW: 58.3 kDa

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 (PubMed:25512613). [UniProtKB/Swiss-Prot Function]