

NLK Antibody
Rabbit mAb
Catalog # AP92601

Specification

NLK Antibody - Product Information

Application	WB, FC
Primary Accession	O9UBE8
Clonality	Monoclonal
Other Names	
LAK1; Nemo like kinase; Nlk;	
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	58283 Da

NLK Antibody - Additional Information

Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human NLK
Description	Role in cell fate determination, required for differentiation of bone marrow stromal cells. Acts downstream of MAP3K7 and HIPK2 to negatively regulate the canonical Wnt/beta-catenin signaling pathway and the phosphorylation and destruction of the MYB transcription factor.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

NLK Antibody - Protein Information

Name NLK

Synonyms LAK1 {ECO:0000312|EMBL:AAD56013.1}

Function

Serine/threonine-protein kinase that regulates a number of transcription factors with key roles in cell fate determination (PubMed: [12482967](http://www.uniprot.org/citations/12482967) target="_blank">12482967, PubMed: [14960582](http://www.uniprot.org/citations/14960582) target="_blank">14960582, PubMed: [15004007](http://www.uniprot.org/citations/15004007) target="_blank">15004007, PubMed: [15764709](http://www.uniprot.org/citations/15764709) target="_blank">15764709, PubMed: [20061393](http://www.uniprot.org/citations/20061393) target="_blank">20061393, PubMed: [20874444](http://www.uniprot.org/citations/20874444) target="_blank">20874444, PubMed: [21454679](http://www.uniprot.org/citations/21454679) target="_blank">21454679)

target="_blank">21454679). Positive effector of the non-canonical Wnt signaling pathway, acting downstream of WNT5A, MAP3K7/TAK1 and HIPK2 (PubMed:15004007, PubMed:15764709). Negative regulator of the canonical Wnt/beta-catenin signaling pathway (PubMed:12482967). 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 (PubMed:21454679). Together these effects inhibit the transcriptional activation of canonical Wnt/beta-catenin target genes (PubMed:12482967, PubMed:21454679). Negative regulator of the Notch signaling pathway (PubMed:20118921). Binds to and phosphorylates NOTCH1, thereby preventing the formation of a transcriptionally active ternary complex of NOTCH1, RBPJ/RBPSUH and MAML1 (PubMed:20118921). Negative regulator of the MYB family of transcription factors (PubMed:15082531). Phosphorylation of MYB leads to its subsequent proteolysis while phosphorylation of MYBL1 and MYBL2 inhibits their interaction with the coactivator CREBBP (PubMed:15082531). Other transcription factors may also be inhibited by direct phosphorylation of CREBBP itself (PubMed:15082531). Acts downstream of IL6 and MAP3K7/TAK1 to phosphorylate STAT3, which is in turn required for activation of NLK by MAP3K7/TAK1 (PubMed:15004007, PubMed:15764709). Upon IL1B stimulus, cooperates with ATF5 to activate the transactivation activity of C/EBP subfamily members (PubMed:25512613). Phosphorylates ATF5 but also stabilizes ATF5 protein levels in a kinase-independent manner (PubMed:25512613). Acts as an inhibitor of the mTORC1 complex in response to osmotic stress by mediating phosphorylation of RPTOR, thereby preventing recruitment of the mTORC1 complex to lysosomes (PubMed:26588989).

Cellular Location

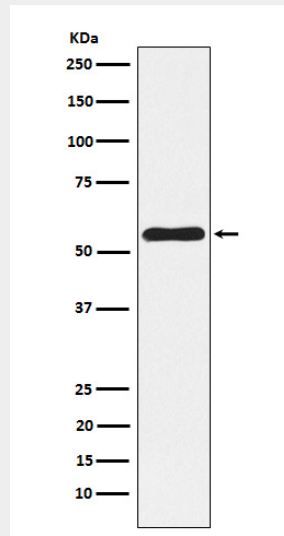
Nucleus {ECO:0000250|UniProtKB:O54949}. Cytoplasm {ECO:0000250|UniProtKB:O54949}. Note=Predominantly nuclear. A smaller fraction is cytoplasmic. {ECO:0000250|UniProtKB:O54949}

NLK Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

NLK Antibody - Images



Western blot analysis of NLK expression in A375 cell lysate.