

# NLK Antibody

Rabbit mAb

Catalog # AP92601

## Product Information

<b>Application</b>	WB, FC
<b>Primary Accession</b>	<a href="#">Q9UBE8</a>
<b>Reactivity</b>	Human
<b>Clonality</b>	Monoclonal
<b>Other Names</b>	LAK1; Nemo like kinase; Nlk;
<b>Isotype</b>	Rabbit IgG
<b>Host</b>	Rabbit
<b>Calculated MW</b>	58283

## Additional Information

<b>Dilution</b>	WB 1:500~1:2000 FC 1:50
<b>Purification</b>	Affinity-chromatography
<b>Immunogen</b>	A synthesized peptide derived from human NLK
<b>Description</b>	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.
<b>Storage Condition and Buffer</b>	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.

## Protein Information

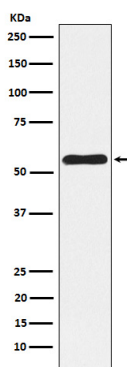
<b>Name</b>	NLK
<b>Synonyms</b>	LAK1 {ECO:0000312 EMBL:AAD56013.1}
<b>Function</b>	Serine/threonine-protein kinase that regulates a number of transcription factors with key roles in cell fate determination (PubMed: <a href="#">12482967</a> , PubMed: <a href="#">14960582</a> , PubMed: <a href="#">15004007</a> , PubMed: <a href="#">15764709</a> , PubMed: <a href="#">20061393</a> , PubMed: <a href="#">20874444</a> , PubMed: <a href="#">21454679</a> ). Positive effector of the non-canonical Wnt signaling pathway, acting downstream of WNT5A, MAP3K7/TAK1 and HIPK2 (PubMed: <a href="#">15004007</a> , PubMed: <a href="#">15764709</a> ). Negative regulator of the canonical Wnt/beta-catenin signaling pathway (PubMed: <a href="#">12482967</a> ). 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: <a href="#">21454679</a> ). Together these effects inhibit the transcriptional activation of canonical Wnt/beta-catenin target genes (PubMed: <a href="#">12482967</a> , PubMed: <a href="#">21454679</a> ). 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}

### Images



Western blot analysis of NLK expression in A375 cell lysate.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.