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Mouse Nlk Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP13929b

Specification

Mouse Nlk Antibody (C-term) - Product Information

Application	**IHC-P, WB,E**
Primary Accession	O54949
Other Accession	D3ZSZ3, Q9UBE8, E1BMN8, NP_032728.3, XP_001472539.1
Reactivity	**Human, Mouse**
Predicted	**Bovine, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**58313**
Antigen Region	**408-436**

Mouse Nlk Antibody (C-term) - Additional Information

Gene ID 18099

Other Names
Serine/threonine-protein kinase NLK, Nemo-like kinase, Nlk {ECO:0000312|EMBL:AAC244991}

Target/Specificity
This Mouse Nlk antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 408-436 amino acids from the C-terminal region of mouse Nlk.

Dilution
IHC-P~~1:10~50
WB~~1:1000
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Mouse Nlk Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Mouse Nlk Antibody (C-term) - Protein Information

Name Nlk {ECO:0000312|EMBL:AAC24499.1}

Function Serine/threonine-protein kinase that regulates a number of transcription factors with key roles in cell fate determination (PubMed:10391247, PubMed:11745377, PubMed:12482967, PubMed:12556497, PubMed:14720327, PubMed:15004007, PubMed:17785444, PubMed:18765672, PubMed:20874444, PubMed:21118996, PubMed:9448268). Positive effector of the non-canonical Wnt signaling pathway, acting downstream of WNT5A, MAP3K7/TAK1 and HIPK2 (PubMed:15004007). Negative regulator of the canonical Wnt/beta-catenin signaling pathway (PubMed:20194509). 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:12556497). Together these effects inhibit the transcriptional activation of canonical Wnt/beta-catenin target genes (PubMed:12556497). 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:16055500). Phosphorylation of MYB leads to its subsequent proteolysis while phosphorylation of MYBL1 and MYBL2 inhibits their interaction with the coactivator CREBBP (PubMed:15082531, PubMed:15308626, PubMed:16055500). Other transcription factors may also be inhibited by direct phosphorylation of CREBBP itself (PubMed:15082531, PubMed:15308626, PubMed:16055500). Acts downstream of IL6 and MAP3K7/TAK1 to phosphorylate STAT3, which is in turn required for activation of NLK by MAP3K7/TAK1 (PubMed:15004007). Upon IL1B stimulus, cooperates with ATF5 to activate the transactivation activity of C/EBP subfamily members (By similarity). Phosphorylates ATF5 but also stabilizes ATF5 protein levels in a kinase-independent manner (By similarity). 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 (By similarity).

Cellular Location
Nucleus. Cytoplasm Note=Predominantly nuclear. A smaller fraction is cytoplasmic

Tissue Location
Expressed at high levels in the brain, and at lower levels in heart, kidney, lung and liver.

Mouse Nlk Antibody (C-term) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Mouse Nlk Antibody (C-term) - Images

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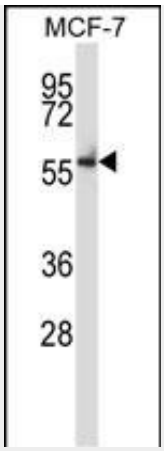
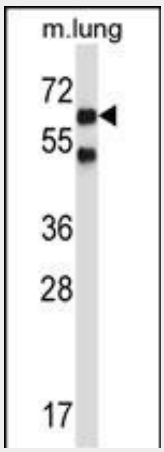
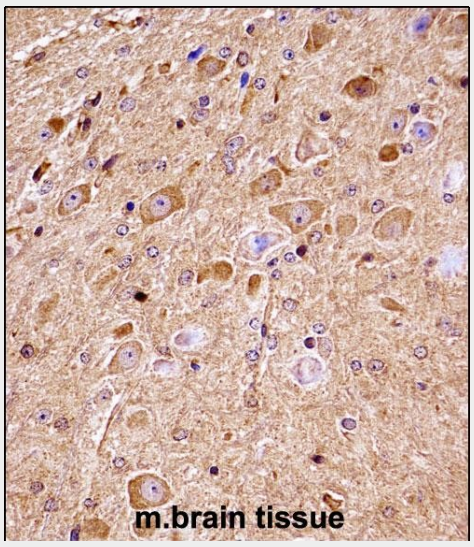


Mouse Nlk Antibody (C-term) (Cat. #AP13929b) western blot analysis in MCF-7 cell line lysates (35ug/lane).This demonstrates the Nlk antibody detected the Nlk protein (arrow).



Mouse Nlk Antibody (C-term) (Cat. #AP13929b) western blot analysis in mouse lung tissue lysates (35ug/lane).This demonstrates the Nlk antibody detected the Nlk protein (arrow).



Mouse Nlk Antibody (C-term) (AP13929b)immunohistochemistry analysis in formalin fixed and paraffin embedded mouse brain tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of Mouse Nlk Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.

Mouse Nlk Antibody (C-term) - Background

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. May suppress a wide range of transcription factors by phosphorylation of the coactivator, CREBBP. Involved in TGFbeta-mediated mesoderm induction, acting downstream of MAP3K7/TAK1 to phosphorylate STAT3.

Mouse Nlk Antibody (C-term) - References

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