

**KD-Validated Anti-Nemo Like Kinase Rabbit Monoclonal Antibody**  
**Rabbit monoclonal antibody**  
**Catalog # AGI1616****Specification****KD-Validated Anti-Nemo Like Kinase Rabbit Monoclonal Antibody - Product Information**

|                   |   |
|-------------------|---|
| Application       | WB, FC, ICC   |
| Primary Accession | <a href="#">Q9UBE8</a>  |
| Reactivity        | Human   |
| Clonality         | Monoclonal  |
| Isotype           | Rabbit IgG  |
| Calculated MW     | Predicted, 58 kDa ; Observed , 58 kDa KDa   |
| Gene Name         | NLK   |
| Aliases           | Nemo Like Kinase;<br>Serine/Threonine-Protein Kinase NLK;<br>Nemo-Like Kinase; EC 2.7.11.24; Protein<br>LAK1; EC 2.7.11; LAK1 |
| Immunogen         | A synthesized peptide derived from human<br>NLK   |

**KD-Validated Anti-Nemo Like Kinase Rabbit Monoclonal Antibody - Additional Information**

|  |       |
|--|-------|
| Gene ID  | 51701 |
| <b>Other Names</b>   |       |
| Serine/threonine-protein kinase NLK, 2.7.11.24, Nemo-like kinase, Protein LAK1, NLK, LAK1<br>{ECO:0000312 EMBL:AAD56013.1} |       |

**KD-Validated Anti-Nemo Like Kinase Rabbit Monoclonal 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:<a href="http://www.uniprot.org/citations/12482967" target="\_blank">12482967</a>, PubMed:<a href="http://www.uniprot.org/citations/14960582" target="\_blank">14960582</a>, PubMed:<a href="http://www.uniprot.org/citations/15004007" target="\_blank">15004007</a>, PubMed:<a href="http://www.uniprot.org/citations/15764709" target="\_blank">15764709</a>, PubMed:<a href="http://www.uniprot.org/citations/20061393" target="\_blank">20061393</a>, PubMed:<a href="http://www.uniprot.org/citations/20874444" target="\_blank">20874444</a>, PubMed:<a href="http://www.uniprot.org/citations/21454679" target="\_blank">21454679</a>). Positive effector of the non-canonical Wnt signaling pathway, acting downstream of WNT5A, MAP3K7/TAK1 and HIPK2 (PubMed:<a href="http://www.uniprot.org/citations/15004007" target="\_blank">15004007</a>, PubMed:<a href="http://www.uniprot.org/citations/15764709" target="\_blank">15764709</a>). Negative regulator of the canonical Wnt/beta-catenin signaling pathway (PubMed:<a href="http://www.uniprot.org/citations/15004007" target="\_blank">15004007</a>, PubMed:<a href="http://www.uniprot.org/citations/15764709" target="\_blank">15764709</a>).

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

#### Cellular Location

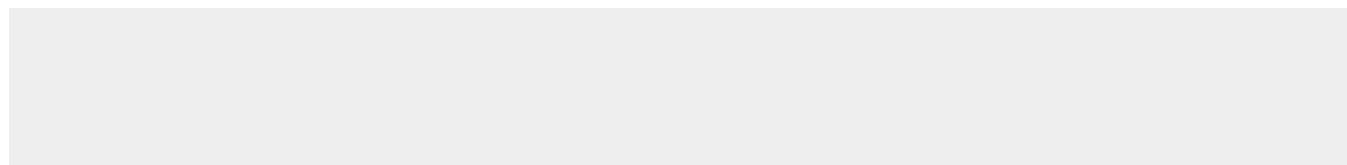
Nucleus {ECO:0000250|UniProtKB:O54949}. Cytoplasm {ECO:0000250|UniProtKB:O54949}.  
Note=Predominantly nuclear. A smaller fraction is cytoplasmic.  
{ECO:0000250|UniProtKB:O54949}

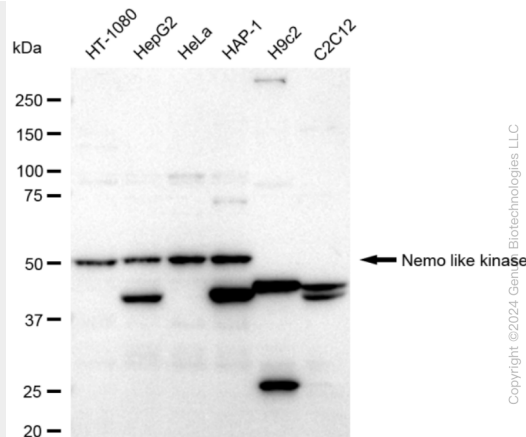
#### KD-Validated Anti-Nemo Like Kinase Rabbit Monoclonal Antibody - Protocols

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

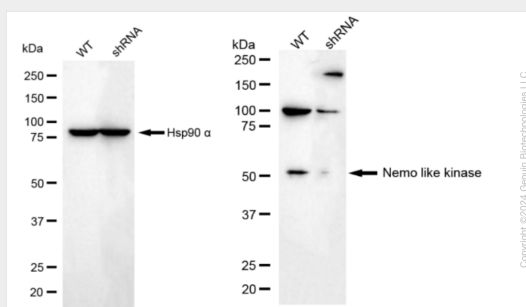
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### KD-Validated Anti-Nemo Like Kinase Rabbit Monoclonal Antibody - Images

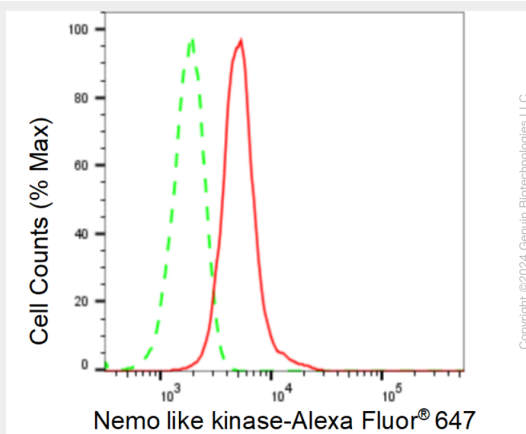




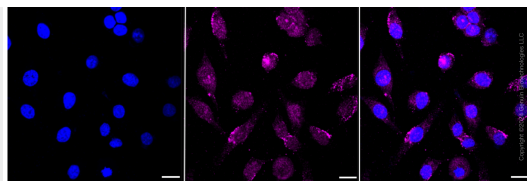
Western blotting analysis using anti-Nemo like kinase antibody (Cat#AGI1616). Total cell lysates (30  $\mu$ g) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-Nemo like kinase antibody (Cat#AGI1616, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Western blotting analysis using anti-Nemo like kinase antibody (Cat#AGI1616). Nemo like kinase expression in wild type (WT) and Nemo like kinase shRNA knockdown (KD) HT-1080 cells with 20  $\mu$ g of total cell lysates. Hsp90  $\alpha$  serves as a loading control. The blot was incubated with anti-Nemo like kinase antibody (Cat#AGI1616, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of Nemo like kinase expression in HeLa cells using Nemo like kinase antibody (Cat#AGI1616, 1:2,000). Green, isotype control; red, Nemo like kinase.



Immunocytochemical staining of HeLa cells with anti-Nemo like kinase antibody (Cat#AGI1616, 1:1,000). Nuclei were stained blue with DAPI; Nemo like kinase was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar: 20  $\mu$ m.