Datasheet for ABIN7554753

Nemo-Like Kinase Protein (NLK) (AA 1-527) (His tag)

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Overview

Quantity:	1 mg
Target:	Nemo-Like Kinase (NLK)
Protein Characteristics:	AA 1-527
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This Nemo-Like Kinase protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant NLK Protein expressed in mammalian cells.
Sequence:	MSLCGARANA KMMAAYNGGT SAAAAGHHHH HHHHLPHLPP PHLHHHHHPQ HHLHPGSAAA VHPVQQHTSS AAAAAAAAAA AAAMLNPGQQ QPYFPSPAPG QAPGPAAAAP AQVQAAAAAT VKAHHHQHSH HPQQQLDIEP DRPIGYGAFG VVWSVTDPRD GKRVALKKMP NVFQNLVSCK RVFRELKMLC FFKHDNVLSA LDILQPPHID YFEEIYVVTE LMQSDLHKII VSPQPLSSDH VKVFLYQILR GLKYLHSAGI LHRDIKPGNL LVNSNCVLKI CDFGLARVEE LDESRHMTQE VVTQYYRAPE ILMGSRHYSN AIDIWSVGCI FAELLGRRIL FQAQSPIQQL DLITDLLGTP SLEAMRTACE GAKAHILRGP HKQPSLPVLY TLSSQATHEA VHLLCRMLVF DPSKRISAKD ALAHPYLDEG RLRYHTCMCK CCFSTSTGRV YTSDFEPVTN PKFDDTFEKN LSSVRQVKEI IHQFILEQQK GNRVPLCINP QSAAFKSFIS STVAQPSEMP PSPLVWE **Sequence without tag. The proposed Purification-Tag is based on experiences with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.**

Product Details

Specificity:	If you are looking for a specific domain and are interested in a partial protein or a different isoform, please contact us regarding an individual offer.
Characteristics:	Key Benefits: • Made to order protein - from design to production - by highly experienced protein experts. • Protein expressed in mammalian cells and purified in one-step affinity chromatography • The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins. • State-of-the-art algorithm used for plasmid design (Gene synthesis). This protein is a made-to-order protein and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein. If you are not interested in a full length protein, please contact us for individual protein fragments. The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.
Purity:	> 90 % as determined by Bis-Tris PAGE, anti-tag ELISA, Western Blot and analytical SEC (HPLC)
Grade:	custom-made

Target Details

Target:	Nemo-Like Kinase (NLK)
Alternative Name:	NLK (NLK Products)
Background:	Serine/threonine-protein kinase NLK (EC 2.7.11.24) (Nemo-like kinase) (Protein LAK1),FUNCTION: Serine/threonine-protein kinase that regulates a number of transcription factors with key roles in cell fate determination (PubMed:14960582, PubMed:12482967, PubMed:15004007, PubMed:15764709, PubMed:20061393, PubMed:20874444, PubMed: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).

Target Details

	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). {ECO:0000269|PubMed:12482967, ECO:0000269|PubMed:14960582, ECO:0000269|PubMed:15004007, ECO:0000269|PubMed:15082531, ECO:0000269|PubMed:15764709, ECO:0000269|PubMed:20061393, ECO:0000269|PubMed:20118921, ECO:0000269|PubMed:20874444, ECO:0000269|PubMed:21454679, ECO:0000269|PubMed:25512613, ECO:0000269|PubMed:26588989}.
Molecular Weight:	58.3 kDa
UniProt:	Q9UBE8
Pathways:	Ubiquitin Proteasome Pathway

Application Details

Application Notes:	We expect the protein to work for functional studies. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.

Handling

Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months