

Datasheet for ABIN7554818  
**NUAK1 Protein (AA 1-661) (His tag)**



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## Overview

Quantity:	1 mg
Target:	NUAK1
Protein Characteristics:	AA 1-661
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This NUAK1 protein is labelled with His tag.

## Product Details

Purpose:	Custom-made recombinant NUAK1 Protein expressed in mammalian cells.
Sequence:	<p>MEGAAAPVAG DRPDLGLGAP GSPREAVAGA TAALEPRKPH GVKRHHHKHN LKHRYELQET          LGKGTYGKVK RATERFSGRV VAIKSIRKDK IKDEQDMVHI RREIEIMSSL NHPHIISIYE          VFENKDKIVI IMEYASKGEL YDYISERRRL SERETRHHFFR QIVSAVHYCH KNGVVHRDLK          LENILLDDNC NIKIADFGLS NLYQKDKFLQ TFCGSPLYAS PEIVNGRPYR GPEVDSWALG          VLLYTLVYGT MPFDGFDHKN LIRQISSGEY REPTQPSDAR GLIRWMLMVN PDRRATIEDI          ANHWWVNWGY KSSVCDCDAL HDSESPILLAR IIDWHHRSTG LQADTEAKMK GLAKPTTSEV          MLERQRSLKK SKKENDFAQS GQDAVPESPS KLSSKRPKGI LKKRSNSEHR SHSTGFIEGV          VGPALPSTFK MEQDLCRTGV LLPSSPEAEV PGKLSPKQSA TMPKKGILKK TQQRESGYYS          SPERSESSEL LDSNDVMGSS IPSPSPDPA RVTSHSLSCR RKGILKHSSK YSAGTMDPAL          VSPEMPTLES LSEPGVPAEG LSRYSRPSS VISDDSVLSS DSFDLLDLQE NRPARQIRIS          CVSAENFLQI QDFEGLQNRP RPQYLKRYRN RLADSSFSLL TDMDDVTQVY KQALEICSKL N</p> <p><b>Sequence without tag. The proposed Purification-Tag is based on experiences with the</b></p>

**expression system, a different complexity of the protein could make another tag necessary.**

**In case you have a special request, please contact us.**

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:	<p>Key Benefits:</p> <ul style="list-style-type: none"><li>• Made to order protein - from design to production - by highly experienced protein experts.</li><li>• Protein expressed in mammalian cells and purified in one-step affinity chromatography</li><li>• The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.</li><li>• State-of-the-art algorithm used for plasmid design (Gene synthesis).</li></ul> <p>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.</p> <p>If you are not interested in a full length protein, please contact us for individual protein fragments.</p> <p>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.</p>
Purity:	> 90 % as determined by Bis-Tris PAGE, anti-tag ELISA, Western Blot and analytical SEC (HPLC)
Grade:	custom-made

## Target Details

Target:	NUAK1
Alternative Name:	NUAK1 ( <a href="#">NUAK1 Products</a> )
Background:	<p>NUAK family SNF1-like kinase 1 (EC 2.7.11.1) (AMPK-related protein kinase 5) (ARK5) (Omphalocle kinase 1),FUNCTION: Serine/threonine-protein kinase involved in various processes such as cell adhesion, regulation of cell ploidy and senescence, cell proliferation and tumor progression. Phosphorylates ATM, CASP6, LATS1, PPP1R12A and p53/TP53. Acts as a regulator of cellular senescence and cellular ploidy by mediating phosphorylation of 'Ser-464' of LATS1, thereby controlling its stability. Controls cell adhesion by regulating activity of the myosin protein phosphatase 1 (PP1) complex. Acts by mediating phosphorylation of PPP1R12A subunit of myosin PP1: phosphorylated PPP1R12A then interacts with 14-3-3, leading to reduced dephosphorylation of myosin MLC2 by myosin PP1. May be involved in DNA</p>

## Target Details

damage response: phosphorylates p53/TP53 at 'Ser-15' and 'Ser-392' and is recruited to the CDKN1A/WAF1 promoter to participate in transcription activation by p53/TP53. May also act as a tumor malignancy-associated factor by promoting tumor invasion and metastasis under regulation and phosphorylation by AKT1. Suppresses Fas-induced apoptosis by mediating phosphorylation of CASP6, thereby suppressing the activation of the caspase and the subsequent cleavage of CFLAR. Regulates UV radiation-induced DNA damage response mediated by CDKN1A. In association with STK11, phosphorylates CDKN1A in response to UV radiation and contributes to its degradation which is necessary for optimal DNA repair (PubMed:25329316). {ECO:0000269|PubMed:12409306, ECO:0000269|PubMed:14976552, ECO:0000269|PubMed:15060171, ECO:0000269|PubMed:15273717, ECO:0000269|PubMed:19927127, ECO:0000269|PubMed:20354225, ECO:0000269|PubMed:21317932, ECO:0000269|PubMed:25329316}.

Molecular Weight: 74.3 kDa

UniProt: [O60285](#)

## 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.

Storage: -80 °C

Storage Comment: Store at -80°C.

Expiry Date: 12 months