

## Recombinant Human NUAK1 Protein (E2-N661), Tag Free

Cat. No. NUAK1-1132H Lot. No. (See product label)

### SPECIFICATION

**Product Overview** Recombinant Human GG-NuaK1(E2-N661 end) Protein was expressed in Insect cell.

**Species** Human

**Source** Insect Cells

**ProteinLength** E2-N661

#### Description

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 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

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	radiation and contributes to its degradation which is necessary for optimal DNA repair.
<b>Form</b>	Liquid
<b>Endotoxin</b>	< 0.01 EU per µg of the protein
<b>Purity</b>	90%
<b>Stability</b>	Samples are stable for up to twelve months from date of receipt at -20 to -80 centigrade.
<b>Storage</b>	Store it under sterile conditions at -20 to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
<b>Storage Buffer</b>	Supplied as sterile 50 mM Tris-HCl (pH7.5), 200 mM NaCl, 20% glycerol
<b>Shipping</b>	It is shipped out with blue ice.

## GENE INFORMATION

<b>Gene Name</b>	NUAK1 NUAKE family, SNF1-like kinase, 1 [ Homo sapiens (human) ]
<b>Official Symbol</b>	NUAK1
<b>Synonyms</b>	NUAK1; NUAKE family, SNF1-like kinase, 1; NUAKE family SNF1-like kinase 1; AMP activated protein kinase family member 5; ARK5; KIAA0537; NuaK1; omphalocele kinase 1; AMPK-related protein kinase 5; AMP-activated protein kinase family member 5;
<b>Gene ID</b>	9891

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mRNA Refseq	NM_014840
Protein Refseq	NP_055655
MIM	608130
UniProt ID	O60285

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