Datasheet for ABIN7563879

PLK3 Protein (AA 1-631) (His tag)

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Overview

Quantity:	1 mg
Target:	PLK3
Protein Characteristics:	AA 1-631
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This PLK3 protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant Plk3 Protein expressed in mammalian cells.
Sequence:	MEPAAGFLSP RPFPRAAVPS APPAGPGPPA NASPRSEPEV LAGPRAPDPP GRLITDPLSG RTYTKGRLLG KGGFARCYEA TDTESGIAYA VKVIPQSRVA KPHQREKILN EIELHRDLQH RHIVRFSHHF EDADNIYIFL ELCSRKSLAH IWKARHTLLE PEVRYYLRQI LSGLKYLHQR GILHRDLKLG NFFITDNMEL KVGDFGLAAR LEPPEQRKKT ICGTPNYVAP EVLLRQGHGP EADVWSLGCV MYTLLCGSPP FETADLKETY RCIKQVHYTL PASLSLPARQ LLAAILRASP RDRPSIEQIL RHDFFTKGYT PDRLPVSSCV TVPDLTPPNP ARSLFAKVTK SLFGRKKNKN KNHSEDQDNV SCLAPVVSGQ APASLIETAA EDSSPRGTLA SSGDGFEEGL TVATVVESAL CALRNCVAFM PPAEQNPAPL AQPEPLVWVS KWVDYSNKFG FGYQLSSRRV AVLFNDGTHM ALSANRKTVH YNPTSTKHFS FSMGSVPRAL QPQLGILRYF ASYMEQHLMK GGDLPSVEEA EVPAPPLLLQ WVKTDQALLM LFSDGTVQVN FYGDHTKLIL SGWEPLLVTF VARNRSACTY LASHLRQLGC SPDLRQRLRY ALRLLRDQSP A **Sequence without tag. The proposed Purification-Tag is based on experiences with the expression system, a different complexity**

Product Details

	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:	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:	PLK3
Alternative Name:	Plk3 (PLK3 Products)
Background:	Serine/threonine-protein kinase PLK3 (EC 2.7.11.21) (Cytokine-inducible serine/threonine-protein kinase) (FGF-inducible kinase) (Polo-like kinase 3) (PLK-3),FUNCTION: Serine/threonine-protein kinase involved in cell cycle regulation, response to stress and Golgi disassembly. Polo-like kinases act by binding and phosphorylating proteins that are already phosphorylated on a specific motif recognized by the POLO box domains. Phosphorylates ATF2, BCL2L1, CDC25A, CDC25C, CHEK2, HIF1A, JUN, p53/TP53, p73/TP73, PTEN, TOP2A and VRK1. Involved in cell cycle regulation: required for entry into S phase and cytokinesis. Phosphorylates BCL2L1, leading to regulate the G2 checkpoint and progression to cytokinesis during mitosis. Plays a key role in response to stress: rapidly activated upon stress stimulation, such as ionizing

Target Details

	radiation, reactive oxygen species (ROS), hyperosmotic stress, UV irradiation and hypoxia. Involved in DNA damage response and G1/S transition checkpoint by phosphorylating CDC25A, p53/TP53 and p73/TP73. Phosphorylates p53/TP53 in response to reactive oxygen species (ROS), thereby promoting p53/TP53-mediated apoptosis. Phosphorylates CHEK2 in response to DNA damage, promoting the G2/M transition checkpoint. Phosphorylates the transcription factor p73/TP73 in response to DNA damage, leading to inhibit p73/TP73-mediated transcriptional activation and pro-apoptotic functions. Phosphorylates HIF1A and JUN is response to hypoxia. Phosphorylates ATF2 following hyperosmotic stress in corneal epithelium. Also involved in Golgi disassembly during the cell cycle: part of a MEK1/MAP2K1-dependent pathway that induces Golgi fragmentation during mitosis by mediating phosphorylation of VRK1. May participate in endomitotic cell cycle, a form of mitosis in which both karyokinesis and cytokinesis are interrupted and is a hallmark of megakaryocyte differentiation, via its interaction with CIB1. {ECO:0000269|PubMed:20940307, ECO:0000269|PubMed:21376736, ECO:0000269|PubMed:9677325}.
Molecular Weight:	70.0 kDa
UniProt:	Q60806
Pathways:	Regulation of long-term Neuronal Synaptic Plasticity

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