Datasheet for ABIN7563429

PLK2 Protein (AA 1-682) (His tag)

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Overview

Quantity:	1 mg
Target:	PLK2
Protein Characteristics:	AA 1-682
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This PLK2 protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant Plk2 Protein expressed in mammalian cells.
Sequence:	MELLRTITYQ PAAGTKMCEQ ALGKACGGDS KKKRPQQPSE DGQPQAQVTP AAPHHHHHHS HSGPEISRII VDPTTGKRYC RGKVLGKGGF AKCYEMTDLT NNKVYAAKII PHSRVAKPHQ REKIDKEIEL HRLLHHKHVV QFYHYFEDKE NIYILLEYCS RRSMAHILKA RKVLTEPEVR YYLRQIVSGL KYLHEQEILH RDLKLGNFFI NEAMELKVGD FGLAARLEPL EHRRRTICGT PNYLSPEVLN KQGHGCESDI WALGCVMYTM LLGRPPFETT NLKETYRCIR EARYTMPSSL LAPAKHLIAS MLSKNPEDRP SLDDIIRHDF FLQGFTPDRL SSSCCHTVPD FHLSSPAKNF FKKAAAALFG GKKDKARYND THNKVSKEDE DIYKLRHDLK KVSITQQPSK HRADEEPQPP PTTVARSGTS AVENKQQIGD AIRMIVRGTL GSCSSSSECL EDSTMGSVAD TVARVLRGCL ENMPEADCIP KEQLSTSFQW VTKWVDYSNK YGFGYQLSDH TVGVLFNNGA HMSLLPDKKT VHYYAELGQC SVFPATDAPE QFISQVTVLK YFSHYMEENL MDGGDLPSVT DIRRPRLYLL QWLKSDKALM MLFNDGTFQV NFYHDHTKII ICNQSEEYLL TYINEDRIST TFRLTTLLMS GCSLELKNRM EYALNMLLQR CN **Sequence without tag. The proposed Purification-Tag is**

Product Details

	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.
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:	PLK2
Alternative Name:	Plk2 (PLK2 Products)
Background:	Serine/threonine-protein kinase PLK2 (EC 2.7.11.21) (Polo-like kinase 2) (PLK-2) (Serine/threonine-protein kinase SNK) (Serum-inducible kinase),FUNCTION: Tumor suppressor serine/threonine-protein kinase involved in synaptic plasticity, centriole duplication and G1/S phase transition. Polo-like kinases act by binding and phosphorylating proteins that are already phosphorylated on a specific motif recognized by the POLO box domains. Phosphorylates CENPJ, NPM1, RAPGEF2, RASGRF1, SNCA, SIPA1L1 and SYNGAP1. Plays a key role in synaptic plasticity and memory by regulating the Ras and Rap protein signaling: required for overactivity-dependent spine remodeling by phosphorylating the Ras activator RASGRF1 and the Rap inhibitor SIPA1L1 leading to their degradation by the proteasome. Conversely, phosphorylates

Target Details

	the Rap activator RAPGEF2 and the Ras inhibitor SYNGAP1, promoting their activity. Also regulates synaptic plasticity independently of kinase activity, via its interaction with NSF that disrupts the interaction between NSF and the GRIA2 subunit of AMPARs, leading to a rapid rundown of AMPAR-mediated current that occludes long term depression. Required for procentriole formation and centriole duplication by phosphorylating CENPJ and NPM1, respectively. Its induction by p53/TP53 suggests that it may participate in the mitotic checkpoint following stress. {ECO:0000269|PubMed:12651910, ECO:0000269|PubMed:12897130, ECO:0000269|PubMed:19004816, ECO:0000269|PubMed:21382555}.
Molecular Weight:	77.8 kDa
UniProt:	P53351

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

