Datasheet for ABIN3096394

WNK4 Protein (AA 1-1243) (His tag)

1 Image

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Overview

Quantity:	1 mg
Target:	WNK4
Protein Characteristics:	AA 1-1243
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This WNK4 protein is labelled with His tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS), Crystallization (Crys)

Product Details

Sequence:	MLASPATETT VLMSQTEADL ALRPPPPLGT AGQPRLGPPP RRARRFSGKA EPRPRSSRLS RRSSVDLGLL SSWSLPASPA PDPPDPPDSA GPGPARSPPP SSKEPPEGTW TEGAPVKAAE DSARPELPDS AVGPGSREPL RVPEAVALER RREQEEKEDM ETQAVATSPD GRYLKFDIEI GRGSFKTVYR GLDTDTTVEV AWCELQTRKL SRAERQRFSE EVEMLKGLQH PNIVRFYDSW KSVLRGQVCI VLVTELMTSG TLKTYLRRFR EMKPRVLQRW SRQILRGLHF LHSRVPPILH RDLKCDNVFI TGPTGSVKIG DLGLATLKRA SFAKSVIGTP EFMAPEMYEE KYDEAVDVYA FGMCMLEMAT SEYPYSECQN AAQIYRKVTS GRKPNSFHKV KIPEVKEIIE GCIRTDKNER FTIQDLLAHA FFREERGVHV ELAEEDDGEK PGLKLWLRME DARRGGRPRD NQAIEFLFQL GRDAAEEVAQ EMVALGLVCE ADYQPVARAV RERVAAIQRK REKLRKAREL EALPPEPGPP PATVPMAPGP PSVFPPEPEE PEADQHQPFL FRHASYSSTT SDCETDGYLS SSGFLDASDP ALQPPGGVPS SLAESHLCLP SAFALSIPRS GPGSDFSPGD SYASDAASGL SDVGEGMGQM RRPPGRNLRR RPRSRLRVTS VSDQNDRVVE CQLQTHNSKM VTFRFDLDGD SPEEIAAAMV

	YNEFILPSER DGFLRRIREI IQRVETLLKR DTGPMEAAED TLSPQEEPAP LPALPVPLPD PSNEELQSST SLEHRSWTAF STSSSSPGTP LSPGNPFSPG TPISPGPIFP ITSPPCHPSP SPFSPISSQV SSNPSPHPTS SPLPFSSSTP EFPVPLSQCP WSSLPTTSPP TFSPTCSQVT LSSPFFPPCP STSSFPSTTA APLLSLASAF SLAVMTVAQS LLSPSPGLLS QSPPAPPSPL PSLPLPPPVA PGGQESPSPH TAEVESEASP PPARPLPGEA RLAPISEEGK PQLVGRFQVT SSKEPAEPLP LQPTSPTLSG SPKPSTPQLT SESSDTEDSA GGGPETREAL AESDRAAEGL GAGVEEEGDD GKEPQVGGSP QPLSHPSPVW MNYSYSSLCL SSEESESSGE DEEFWAELQS LRQKHLSEVE TLQTLQKKEI EDLYSRLGKQ PPPGIVAPAA MLSSRQRRLS KGSFPTSRRN SLQRSEPPGP GIMRRNSLSG SSTGSQEQRA SKGVTFAGDV GRM **Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.**
Characteristics:	• Made in Germany - from design to production - by highly experienced protein experts. • Human WNK4 Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade. • 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 will ensure that you receive a correctly folded protein. 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. In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization). When you order this made-to-order protein you will only pay upon receival of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered. The concentration of our recombinant proteins is measured using the absorbance at 280nm. The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer. The concentration of the protein is calculated using its specific absorption coefficient. We use the Expasy's protparam tool to determine the absorption coefficient of each protein.
Purification:	Two step purification of proteins expressed in baculovirus infected SF9 insect cells: 1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. Eluate

Product Details

	fractions are analyzed by SDS-PAGE. 2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.
Purity:	>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Sterility:	0.22 µm filtered
Endotoxin Level:	Protein is endotoxin free.
Grade:	Crystallography grade

Target Details

Target:	WNK4
Alternative Name:	WNK4 (WNK4 Products)
Background:	Serine/threonine kinase which plays an important role in the regulation of electrolyte homeostasis, cell signaling, survival and proliferation. Acts as an activator and inhibitor of sodium-coupled chloride cotransporters and potassium-coupled chloride cotransporters respectively. Activates SCNN1A, SCNN1B, SCNN1D, SGK1, TRPV5 and TRPV6. Regulates the activity of the thiazide-sensitive Na-Cl cotransporter, SLC12A3, by phosphorylation which appears to prevent membrane trafficking of SLC12A3. Also inhibits the renal K(+) channel, KCNJ1, via a kinase-independent mechanism by which it induces clearance of the protein from the cell surface by clathrin-dependent endocytosis. WNK4 appears to act as a molecular switch that can vary the balance between NaCl reabsorption and K(+) secretion to maintain integrated homeostasis. Phosphorylates NEDD4L. Acts as a scaffold to inhibit SLC4A4 as well as CFTR activities and surface expression, recruits STK39 which mediates the inhibition (By similarity). {ECO:0000250|UniProtKB:Q80UE6, ECO:0000269|PubMed:20525693}.
Molecular Weight:	135.7 kDa Including tag.
UniProt:	Q96J92

Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a gurantee though.
Comment:	In cases in which it is highly likely that the recombinant protein with the default tag will be

Application Details

	insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	100 mM NaCL, 20 mM Hepes, 10% glycerol. pH value 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:	Unlimited (if stored properly)

Images

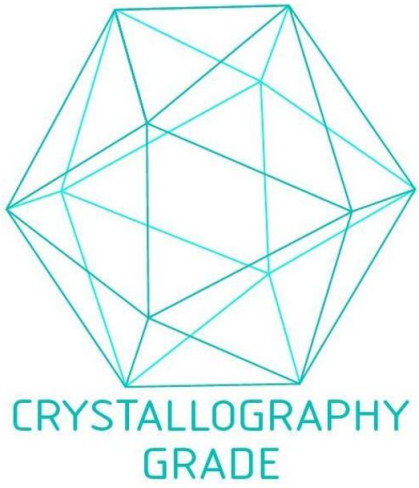

Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process