Datasheet for ABIN7546399

STK39 Protein (AA 1-545) (His tag)

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Overview

Quantity:	1 mg
Target:	STK39
Protein Characteristics:	AA 1-545
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This STK39 protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant STK39 Protein expressed in mammalian cells.
Sequence:	MAEPSGSPVH VQLPQQAAPV TAAAAAAPAA ATAAPAPAAP AAPAPAPAPA AQAVGWPICR DAYELQEVIG SGATAVVQAA LCKPRQERVA IKRINLEKCQ TSMDELLKEI QAMSQCSHPN VVTYYTSFVV KDELWLVMKL LSGGSMLDII KYIVNRGEHK NGVLEEAIIA TILKEVLEGL DYLHRNGQIH RDLKAGNILL GEDGSVQIAD FGVSAFLATG GDVTRNKVRK TFVGTPCWMA PEVMEQVRGY DFKADMWSFG ITAIELATGA APYHKYPPMK VLMLTLQNDP PTLETGVEDK EMMKKYGKSF RKLLSLCLQK DPSKRPTAAE LLKCKFFQKA KNREYLIEKL LTRTPDIAQR AKKVRRVPGS SGHLHKTEDG DWEWSDDEMD EKSEEGKAAF SQEKSRRVKE ENPEIAVSAS TIPEQIQSLS VHDSQGPPNA NEDYREASSC AVNLVLRLRN SRKELNDIRF EFTPGRDTAD GVSQELFSAG LVDGHDVVIV AANLQKIVDD PKALKTLTFK LASGCDGSEI PDEVKLIGFA QLSVS **Sequence without tag. The proposed Purification-Tag is 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.**

Product Details

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:	STK39
Alternative Name:	STK39 (STK39 Products)
Background:	STE20/SPS1-related proline-alanine-rich protein kinase (Ste-20-related kinase) (EC 2.7.11.1) (DCHT) (Serine/threonine-protein kinase 39),FUNCTION: Effector serine/threonine-protein kinase component of the WNK-SPAK/OSR1 kinase cascade, which is involved in various processes, such as ion transport, response to hypertonic stress and blood pressure (PubMed:16669787, PubMed:18270262, PubMed:21321328, PubMed:34289367). Specifically recognizes and binds proteins with a RFXV motif (PubMed:16669787, PubMed:21321328). Acts downstream of WNK kinases (WNK1, WNK2, WNK3 or WNK4): following activation by WNK kinases, catalyzes phosphorylation of ion cotransporters, such as SLC12A1/NKCC2, SLC12A2/NKCC1, SLC12A3/NCC, SLC12A5/KCC2 or SLC12A6/KCC3, regulating their activity (PubMed:21321328). Mediates regulatory volume increase in response to hyperosmotic stress by catalyzing phosphorylation of ion cotransporters SLC12A1/NKCC2, SLC12A2/NKCC1 and

Target Details

	SLC12A6/KCC3 downstream of WNK1 and WNK3 kinases (PubMed:12740379, PubMed:16669787, PubMed:21321328). Phosphorylation of Na-K-Cl cotransporters SLC12A2/NKCC1 and SLC12A2/NKCC1 promote their activation and ion influx, simultaneously, phosphorylation of K-Cl cotransporters SLC12A5/KCC2 and SLC12A6/KCC3 inhibit their activity, blocking ion efflux (PubMed:16669787, PubMed:19665974, PubMed:21321328). Acts as a regulator of NaCl reabsorption in the distal nephron by mediating phosphorylation and activation of the thiazide-sensitive Na-Cl cotransporter SLC12A3/NCC in distal convoluted tubule cells of kidney downstream of WNK4 (PubMed:18270262). Mediates the inhibition of SLC4A4, SLC26A6 as well as CFTR activities (By similarity). Phosphorylates RELT (By similarity). {ECO:0000250|UniProtKB:Q9Z1W9, ECO:0000269|PubMed:12740379, ECO:0000269|PubMed:16669787, ECO:0000269|PubMed:18270262, ECO:0000269|PubMed:19665974, ECO:0000269|PubMed:21321328, ECO:0000269|PubMed:34289367}.
Molecular Weight:	59.5 kDa
UniProt:	Q9UEW8

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