Datasheet for ABIN7555606

STK3 Protein (AA 1-491) (His tag)

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Overview

Quantity:	1 mg
Target:	STK3
Protein Characteristics:	AA 1-491
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This STK3 protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant STK3 Protein expressed in mammalian cells.
Sequence:	MEQPPAPKSK LKKLSEDSLT KQPEEVFDVL EKLGEGSYGS VFKAIHKESG QVVAIKQVPV ESDLQEIIKE ISIMQQCDSP YVVKYYGSYF KNTDLWIVME YCGAGSVSDI IRLRNKTLIE DEIATILKST LKGLEYLHFM RKIHRDIKAG NILLNTEGHA KLADFGVAGQ LTDTMAKRNT VIGTPFWMAP EVIQEIGYNC VADIWSLGIT SIEMAEGKPP YADIHPMRAI FMIPTNPPPT FRKPELWSDD FTDFVKKCLV KNPEQRATAT QLLQHPFIKN AKPVSILRDL ITEAMEIKAK RHEEQQRELE EEEENSDEDE LDSHTMVKTS VESVGTMRAT STMSEGAQTM IEHNSTMLES DLGTMVINSE DEEEEDGTMK RNATSPQVQR PSFMDYFDKQ DFKNKSHENC NQNMHEPFPM SKNVFPDNWK VPQDGDFDFL KNLSLEELQM RLKALDPMME REIEELRQRY TAKRQPILDA MDAKKRRQQN F **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.**
Specificity:	If you are looking for a specific domain and are interested in a partial protein or a different

Product Details

	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:	STK3
Alternative Name:	STK3 (STK3 Products)
Background:	Serine/threonine-protein kinase 3 (EC 2.7.11.1) (Mammalian STE20-like protein kinase 2) (MST-2) (STE20-like kinase MST2) (Serine/threonine-protein kinase Krs-1) [Cleaved into: Serine/threonine-protein kinase 3 36 kDa subunit (MST2/N), Serine/threonine-protein kinase 3 20 kDa subunit (MST2/C)],FUNCTION: Stress-activated, pro-apoptotic kinase which, following caspase-cleavage, enters the nucleus and induces chromatin condensation followed by internucleosomal DNA fragmentation. Key component of the Hippo signaling pathway which plays a pivotal role in organ size control and tumor suppression by restricting proliferation and promoting apoptosis. The core of this pathway is composed of a kinase cascade wherein STK3/MST2 and STK4/MST1, in complex with its regulatory protein SAV1, phosphorylates and activates LATS1/2 in complex with its regulatory protein MOB1, which in turn phosphorylates and inactivates YAP1 oncoprotein and WWTR1/TAZ (PubMed:23972470). Phosphorylation of YAP1 by LATS2 inhibits its translocation into the nucleus to regulate cellular genes important

Target Details

	for cell proliferation, cell death, and cell migration. STK3/MST2 and STK4/MST1 are required to repress proliferation of mature hepatocytes, to prevent activation of facultative adult liver stem cells (oval cells), and to inhibit tumor formation. Phosphorylates NKX2-1 (By similarity). Phosphorylates NEK2 and plays a role in centrosome disjunction by regulating the localization of NEK2 to centrosome, and its ability to phosphorylate CROCC and CEP250 (PubMed:21723128). In conjunction with SAV1, activates the transcriptional activity of ESR1 through the modulation of its phosphorylation. Positively regulates RAF1 activation via suppression of the inhibitory phosphorylation of RAF1 on 'Ser-259'. Phosphorylates MOBKL1A and RASSF2. Phosphorylates MOBKL1B on 'Thr-74'. Acts cooperatively with MOBKL1B to activate STK38. {ECO:0000250|UniProtKB:Q9JI10, ECO:0000269|PubMed:15688006, ECO:0000269|PubMed:16930133, ECO:0000269|PubMed:18328708, ECO:0000269|PubMed:18362890, ECO:0000269|PubMed:19525978, ECO:0000269|PubMed:20212043, ECO:0000269|PubMed:21076410, ECO:0000269|PubMed:21104395, ECO:0000269|PubMed:21723128, ECO:0000269|PubMed:23972470, ECO:0000269|PubMed:28087714, ECO:0000269|PubMed:8566796, ECO:0000269|PubMed:8816758}.
Molecular Weight:	56.3 kDa
UniProt:	Q13188
Pathways:	Tube Formation

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