

Datasheet for ABIN7565080
STK4 Protein (AA 1-487) (His tag)



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Overview

Quantity:	1 mg
Target:	STK4
Protein Characteristics:	AA 1-487
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This STK4 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Purpose:	Custom-made recombinat Stk4 Protein expressed in mammalien cells.
Sequence:	<p>METVQLRNPP RRQLKKLDED SLTKQPEEVF DVLEKLGEGS YGSVYKAIHK ETGQIVAIIKQ VPVESDLQEI IKEISIMQQC DSPHVVKYYG SYFKNTDLWI VMEYCGAGSV SDIIRLRNKT LTEDEIATIL QSTLKGLEYL HFMRKIHRDI KAGNILLNTE GHAKLADFGV AGQLTDTMAK RNTVIGTPFW MAPEVIQEIG YNCVADIWSL GITAIEMAEG KPPYADIHPM RAIFMIPTNP PPTFRKPELW SDNFMDFVKQ CLVKSPEQRA TATQLLQHPF VSAKGVSVIL RDLINAMDV KLKRQEAQQR EVDQDDEENS EEDEMDSGTM VRAAGDEMGT VRVASTMSGG ANTMIEHGDT LPSQLGTMVI NTEDEEEEGT MKRRDETMQP AKPSFLEYFE QKEKENQINS FGKNVSGSLK NSSDWKIPQD GDYEFKLSWT VEDLQKRLLA LDPMMEQEME EIRQKYRSKR QPILDAIEAK KRRQQNF 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.</p>

Product Details

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, Western Blot

Grade:

custom-made

Target Details

Target:

STK4

Alternative Name:

Stk4 ([STK4 Products](#))

Background:

Serine/threonine-protein kinase 4 (EC 2.7.11.1) (Mammalian STE20-like protein kinase 1) (MST-1) (STE20-like kinase MST1) [Cleaved into: Serine/threonine-protein kinase 4 37 kDa subunit (MST1/N), Serine/threonine-protein kinase 4 18 kDa subunit (MST1/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. Phosphorylation of YAP1 by LATS2 inhibits its translocation into the nucleus to regulate cellular genes important for cell proliferation, cell death, and cell migration.

STK3/MST2 and STK4/MST1 are required to repress proliferation of mature hepatocytes, to

Target Details

prevent activation of facultative adult liver stem cells (oval cells), and to inhibit tumor formation. Phosphorylates 'Ser-14' of histone H2B (H2BS14ph) during apoptosis. Phosphorylates FOXO3 upon oxidative stress, which results in its nuclear translocation and cell death initiation. Phosphorylates MOBKL1A, MOBKL1B and RASSF2. Phosphorylates TNNT3 (cardiac Tn-I) and alters its binding affinity to TNNT1 (cardiac Tn-C) and TNNT2 (cardiac Tn-T). Phosphorylates FOXO1 on 'Ser-212' and regulates its activation and stimulates transcription of PMAIP1 in a FOXO1-dependent manner. Phosphorylates SIRT1 and inhibits SIRT1-mediated p53/TP53 deacetylation, thereby promoting p53/TP53 dependent transcription and apoptosis upon DNA damage. Acts as an inhibitor of PKB/AKT1. Phosphorylates AR on 'Ser-650' and suppresses its activity by intersecting with PKB/AKT1 signaling and antagonizing formation of AR-chromatin complexes (By similarity). {ECO:0000250|UniProtKB:Q13043, ECO:0000269|PubMed:20080689}.

Molecular Weight: 55.5 kDa

UniProt: [Q9J111](#)

Pathways: [Tube Formation](#)

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 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