

Datasheet for ABIN7556395  
**STK39 Protein (AA 1-556) (His tag)**



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## Overview

|                               |  |
|-------------------------------|--|
| Quantity:                     | 1 mg   |
| Target:                       | STK39  |
| Protein Characteristics:      | AA 1-556                                     |
| Origin:                       | Mouse  |
| 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: | <p>MAEPSGSPVH VQLSQQAAPV TAAATAPAA ATSAPAPAPA PAPAASAAPA PAPAAAPAPA</p> <p>PAAQAVGWPI CRDAYELQEV IGSGATAVVQ AALCKPRQER VAIKRINLEK CQTSMDLLK</p> <p>EIQAMSQCSH PNVVTYYTSF VVKDELWLVM KLLSGGSMMLD IIKYIVNRGE HKNGVLEEI</p> <p>IATILKEVLE GLDYLHRNGQ IHRDLKAGNI LLGEDGSVQI ADFGVSAFLA TGGDVTRNKV</p> <p>RKTFVGTPCW MAPEVMEQVR GYDFKADMWS FGITAIELAT GAAPYHKYPP MKVLMMLTLQN</p> <p>DPPTLETGVE DKEMMKKYGK SFRKLLSLCL QKDPSCRPTA AELLCKCKFFQ KAKNREYLIE</p> <p>KLLTRTPDIA QRAKKVRRVP GSSGHLHKTE DGDWEWSDDDE MDEKSEEGKA AASQEKSRV</p> <p>KEENSEISVN AGGIPEIQS LSVHDSQAQP NANEDYREGP CAVNLVLRRLR NSRKELNDIR</p> <p>FEFTPGRDTA DGVSQELFSA GLVDGHDVVI VAANLQKIVD DPKALKTLTF KLASGCDGSE</p> <p>IPDEVKLIGF AQLSVS <b>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.</b></p> |

## 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: | <p><b>Key Benefits:</b></p> <ul style="list-style-type: none"><li>• Made to order protein - from design to production - by highly experienced protein experts.</li><li>• Protein expressed in mammalian cells and purified in one-step affinity chromatography</li><li>• The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.</li><li>• State-of-the-art algorithm used for plasmid design (Gene synthesis).</li></ul> <p>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.</p> <p>If you are not interested in a full length protein, please contact us for individual protein fragments.</p> <p>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.</p> |
| 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 ( <a href="#">STK39 Products</a> )   |
| Background:       | STE20/SPS1-related proline-alanine-rich protein kinase (Ste-20-related kinase) (EC 2.7.11.1) (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:16382158, PubMed:17488636, PubMed:19633012, PubMed:21486947). Specifically recognizes and binds proteins with a RFXV motif (PubMed:14563843). 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:14563843, PubMed:16382158, PubMed:17488636, PubMed:19633012, PubMed:21486947). Mediates regulatory volume increase in response to hyperosmotic stress by catalyzing phosphorylation of ion |

## Target Details

cotransporters SLC12A1/NKCC2, SLC12A2/NKCC1 and SLC12A6/KCC3 downstream of WNK1 and WNK3 kinases (By similarity). 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 (By similarity). 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:17488636, PubMed:19633012, PubMed:21486947). Mediates the inhibition of SLC4A4, SLC26A6 as well as CFTR activities (PubMed:21317537, PubMed:23542070). Phosphorylates RELT (PubMed:16530727). {ECO:0000250|UniProtKB:Q9UEW8, ECO:0000269|PubMed:14563843, ECO:0000269|PubMed:16382158, ECO:0000269|PubMed:16530727, ECO:0000269|PubMed:17488636, ECO:0000269|PubMed:19633012, ECO:0000269|PubMed:21317537, ECO:0000269|PubMed:21486947, ECO:0000269|PubMed:23542070}.

Molecular Weight: 60.3 kDa

UniProt: [Q9Z1W9](#)

## 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  |