Datasheet for ABIN7551753

# AAK1 Protein (AA 1-961) (His tag)

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## Overview

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| Quantity: | 1 mg |
| Target: | AAK1 |
| Protein Characteristics: | AA 1-961 |
| Origin: | Human |
| Source: | HEK-293 Cells |
| Protein Type: | Recombinant |
| Purification tag / Conjugate: | This AAK1 protein is labelled with His tag. |
| Application: | Western Blotting (WB), SDS-PAGE (SDS) |

## Product Details

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| Purpose: | Custom-made recombinat AAK1 Protein expressed in mammalien cells. |
| Sequence: | MKKFFDSRRE QGGSGLGSGS SGGGGSTSGL GSGYIGRVFG IGRQQVTVDE VLAEGGFAIV FLVRTSNGMK CALKRMFVNN EHDLQVCKRE IQIMRDLSGH KNIVGYIDSS INNVSSGDVW EVLILMDFCR GGQVVNLMNQ RLQTGFTENE VLQIFCDTCE AVARLHQCKT PIIHRDLKVE NILLHDRGHY VLCDFGSATN KFQNPQTEGV NAVEDEIKKY TTLSYRAPEM VNLYSGKIIT TKADIWALGC LLYKLCYFTL PFGESQVAIC DGNFTIPDNS RYSQDMHCLI RYMLEPDPDK RPDIYQVSYF SFKLLKKECP IPNVQNSPIP AKLPEPVKAS EAAAKKTQPK ARLTDPIPTT ETSIAPRQRP KAGQTQPNPG ILPIQPALTP RKRATVQPPP QAAGSSNQPG LLASVPQPKP QAPPSQPLPQ TQAKQPQAPP TPQQTPSTQA QGLPAQAQAT PQHQQQLFLK QQQQQQQPPP AQQQPAGTFY QQQQAQTQQF QAVHPATQKP AIAQFPVVSQ GGSQQQLMQN FYQQQQQQQQ QQQQQQLATA LHQQQLMTQQ AALQQKPTMA AGQQPQPQPA AAPQPAPAQE PAIQAPVRQQ PKVQTTPPPA VQGQKVGSLT PPSSPKTQRA GHRRILSDVT HSAVFGVPAS KSTQLLQAAA |

## Product Details

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| | AEASLNKSKS ATTTPSGSPR TSQQNVYNPS EGSTWNPFDD DNFSKLTAEE LLNKDFAKLG EGKHPEKLGG SAESLIPGFQ STQGDAFATT SFSAGTAEKR KGGQTVDSGL PLLSVSDPFI PLQVPDAPEK LIEGLKSPDT SLLLPDLLPM TDPFGSTSDA VIEKADVAVE SLIPGLEPPV PQRLPSQTES VTSNRTDSLT GEDSLLDCSL LSNPTTDLLE EFAPTAISAP VHKAAEDSNL ISGFDVPEGS DKVAEDEFDP IPVLITKNPQ GGHSRNSSGS SESSLPNLAR SLLLVDQLID L<br>**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.** |
| Characteristics: | Key Benefits:<br>• Made to order protein - from design to production - by highly experienced protein experts.<br>• Protein expressed in mammalien cells and purified in one-step affinity chromatography<br>• The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.<br>• State-of-the-art algorithm used for plasmid design (Gene synthesis).<br><br>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.<br><br>If you are not interested in a full length protein, please contact us for individual protein fragments.<br><br>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

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| Target: | AAK1 |
| Alternative Name: | AAK1 (AAK1 Products) |
| Background: | AP2-associated protein kinase 1 (EC 2.7.11.1) (Adaptor-associated kinase 1),FUNCTION: Regulates clathrin-mediated endocytosis by phosphorylating the AP2M1/mu2 subunit of the adaptor protein complex 2 (AP-2) which ensures high affinity binding of AP-2 to cargo membrane proteins during the initial stages of endocytosis (PubMed:17494869, PubMed:11877457, PubMed:11877461, PubMed:12952931, PubMed:14617351, |

## Target Details

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| | PubMed:25653444). Isoform 1 and isoform 2 display similar levels of kinase activity towards AP2M1 (PubMed:17494869). Preferentially, may phosphorylate substrates on threonine residues (PubMed:11877457, PubMed:18657069). Regulates phosphorylation of other AP-2 subunits as well as AP-2 localization and AP-2-mediated internalization of ligand complexes (PubMed:12952931). Phosphorylates NUMB and regulates its cellular localization, promoting NUMB localization to endosomes (PubMed:18657069). Binds to and stabilizes the activated form of NOTCH1, increases its localization in endosomes and regulates its transcriptional activity (PubMed:21464124). {ECO:0000269\|PubMed:11877457, ECO:0000269\|PubMed:11877461, ECO:0000269\|PubMed:12952931, ECO:0000269\|PubMed:14617351, ECO:0000269\|PubMed:17494869, ECO:0000269\|PubMed:18657069, ECO:0000269\|PubMed:21464124, ECO:0000269\|PubMed:25653444}., FUNCTION: (Microbial infection) By regulating clathrin-mediated endocytosis, AAK1 plays a role in the entry of hepatitis C virus as well as for the lifecycle of other viruses such as Ebola and Dengue. {ECO:0000269\|PubMed:25653444, ECO:0000305\|PubMed:31136173}. |
| Molecular Weight: | 103.9 kDa |
| UniProt: | Q2M2I8 |

## Application Details

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| 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

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| 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 |