Datasheet for ABIN7552867

# CAMSAP3 Protein (AA 1-1249) (His tag)

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## Overview

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| Quantity: | 1 mg |
| Target: | CAMSAP3 |
| Protein Characteristics: | AA 1-1249 |
| Origin: | Human |
| Source: | HEK-293 Cells |
| Protein Type: | Recombinant |
| Purification tag / Conjugate: | This CAMSAP3 protein is labelled with His tag. |

## Product Details

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| Purpose: | Custom-made recombinant CAMSAP3 Protein expressed in mammalian cells. |
| Sequence: | MVEAAPPGPG PLRRTFLVPE IKSLDQYDFS RAKAAASLAW VLRAAFGGAE HVPPELWEPF YTDQYAQEHV KPPVTRLLLS AELYCRAWRQ ALPQLETPPN PSALLALLAR RGTVPALPER PVREADLRHQ PILMGAHLAV IDALMAAFAF EWTKTLPGPL ALTSLEHKLL FWVDTTVRRL QEKTEQEAAQ RASPAAPADG AAPAQPSIRY RKDRVVARRA PCFPTVTSLQ DLASGAALAA TIHCYCPQLL RLEEVCLKDP MSVADSLYNL QLVQDFCASR LPRGCPLSLE DLLYVPPPLK VNLVVMLAEL FMCFEVLKPD FVQVKDLPDG HAASPRGTEA SPPQNNSGSS SPVFTFRHPL LSSGGPQSPL RGSTGSLKSS PSMSHMEALG KAWNRQLSRP LSQAVSFSTP FGLDSDVDVV MGDPVLLRSV SSDSLGPPRP APARTPTQPP PEPGDLPTIE EALQIIHSAE PRLLPDGAAD GSFYLHSPEG PSKPSLASPY LPEGTSKPLS DRPTKAPVYM PHPETPSKPS PCLVGEASKP PAPSEGSPKA VASSPAATNS EVKMTSFAER KKQLVKAEAE AGAGSPTSTP APPEALSSEM SELSARLEEK RRAIEAQKRR IEAIFAKHRQ RLGKSAFLQV QPREASGEAE AEAEEADSGP VPGGERPAGE GQGEPTSRPK AVTFSPDLGP VPHEGLGEYN RAVSKLSAAL SSLQRDMQRL |

## Product Details

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| | TDQQQRLLAP PEAPGSAPPP AAWVIPGPTT GPKAASPSPA RRVPATRRSP GPGPSQSPRS PKHTRPAELR LAPLTRVLTP PHDVDSLPHL RKFSPSQVPV QTRSSILLAE ETPPEEPAAR PGLIEIPLGS LADPAAEDEG DGSPAGAEDS LEEEASSEGE PRVGLGFFYK DEDKPEDEMA QKRASLLERQ QRRAEEARRR KQWQEVEKEQ RREEAARLAQ EEAPGPAPLV SAVPMATPAP AARAPAEEEV GPRKGDFTRQ EYERRAQLKL MDDLDKVLRP RAAGSGGPGR GGRRATRPRS GCCDDSALAR SPARGLLGSR LSKIYSQSTL SLSTVANEAH NNLGVKRPTS RAPSPSGLMS PSRLPGSRER DWENGSNASS PASVPEYTGP RLYKEPSAKS NKFIIHNALS HCCLAGKVNE PQKNRILEEI EKSKANHFLI LFRDSSCQFR ALYTLSGETE ELSRLAGYGP RTVTPAMVEG IYKYNSDRKR FTQIPAKTMS MSVDAFTIQG HLWQGKKPTT PKKGGGTPK **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 isoform, please contact us regarding an individual offer. |
| Characteristics: | Key Benefits:<br>• Made to order protein - from design to production - by highly experienced protein experts.<br>• Protein expressed in mammalian 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, anti-tag ELISA, Western Blot and analytical SEC (HPLC) |
| Grade: | custom-made |

## Target Details

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| Target: | CAMSAP3 |

## Target Details

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| Alternative Name: | CAMSAP3 (CAMSAP3 Products) |
| Background: | Calmodulin-regulated spectrin-associated protein 3 (Protein Nezha),FUNCTION: Key microtubule-organizing protein that specifically binds the minus-end of non-centrosomal microtubules and regulates their dynamics and organization (PubMed:19041755, PubMed:23169647). Specifically recognizes growing microtubule minus-ends and autonomously decorates and stabilizes microtubule lattice formed by microtubule minus-end polymerization (PubMed:24486153). Acts on free microtubule minus-ends that are not capped by microtubule-nucleating proteins or other factors and protects microtubule minus-ends from depolymerization (PubMed:24486153). In addition, it also reduces the velocity of microtubule polymerization (PubMed:24486153). Required for the biogenesis and the maintenance of zonula adherens by anchoring the minus-end of microtubules to zonula adherens and by recruiting the kinesin KIFC3 to those junctional sites (PubMed:19041755). Required for orienting the apical-to-basal polarity of microtubules in epithelial cells: acts by tethering non-centrosomal microtubules to the apical cortex, leading to their longitudinal orientation (PubMed:27802168, PubMed:26715742). Plays a key role in early embryos, which lack centrosomes: accumulates at the microtubule bridges that connect pairs of cells and enables the formation of a non-centrosomal microtubule-organizing center that directs intracellular transport in the early embryo (By similarity). Couples non-centrosomal microtubules with actin: interaction with MACF1 at the minus ends of non-centrosomal microtubules, tethers the microtubules to actin filaments, regulating focal adhesion size and cell migration (PubMed:27693509). Plays a key role in the generation of non-centrosomal microtubules by accumulating in the pericentrosomal region and cooperating with KATNA1 to release non-centrosomal microtubules from the centrosome (PubMed:28386021). Through the microtubule cytoskeleton, also regulates the organization of cellular organelles including the Golgi and the early endosomes (PubMed:28089391). Through interaction with AKAP9, involved in translocation of Golgi vesicles in epithelial cells, where microtubules are mainly non-centrosomal (PubMed:28089391). Plays an important role in motile cilia function by facilitatating proper orientation of basal bodies and formation of central microtubule pairs in motile cilia (By similarity). {ECO:0000250\|UniProtKB:Q80VC9, ECO:0000269\|PubMed:19041755, ECO:0000269\|PubMed:23169647, ECO:0000269\|PubMed:24486153, ECO:0000269\|PubMed:26715742, ECO:0000269\|PubMed:27693509, ECO:0000269\|PubMed:27802168, ECO:0000269\|PubMed:28089391, ECO:0000269\|PubMed:28386021}. |
| Molecular Weight: | 134.8 kDa |
| UniProt: | Q9P1Y5 |

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## Target Details

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| Pathways: | Cell-Cell Junction Organization, Maintenance of Protein Location |

## Application Details

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| 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

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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 |

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