Datasheet for ABIN7553709

DIAPH1 Protein (AA 1-1272) (His tag)

Go to Product page

Overview

Quantity:	1 mg
Target:	DIAPH1
Protein Characteristics:	AA 1-1272
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This DIAPH1 protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant DIAPH1 Protein expressed in mammalian cells.
Sequence:	MEPPGGSLGP GRGTRDKKKG RSPDELPSAG GDGGKSKKFT LKRLMADELE RFTSMRIKKE KEKPNSAHRN SSASYGDDPT AQSLQDVSDE QVLVLFEQML LDMNLNEEKQ QPLREKDIII KREMVSQYLY TSKAGMSQKE SSKSAMMYIQ ELRSGLRDMP LLSCLESLRV SLNNNPVSWV QTFGAEGLAS LLDILKRLHD EKEETAGSYD SRNKHEIIRC LKAFMNNKFG IKTMLETEEG ILLLVRAMDP AVPNMMIDAA KLLSALCILP QPEDMNERVL EAMTERAEMD EVERFQPLLD GLKSGTTIAL KVGCLQLINA LITPAEELDF RVHIRSELMR LGLHQVLQDL REIENEDMRV QLNVFDEQGE EDSYDLKGRL DDIRMEMDDF NEVFQILLNT VKDSKAEPHF LSILQHLLLV RNDYEARPQY YKLIEECISQ IVLHKNGADP DFKCRHLQIE IEGLIDQMID KTKVEKSEAK AAELEKKLDS ELTARHELQV EMKKMESDFE QKLQDLQGEK DALHSEKQQI ATEKQDLEAE VSQLTGEVAK LTKELEDAKK EMASLSAAAI TVPPSVPSRA PVPPAPPLPG DSGTIIPPPP APGDSTTPPP PPPPPPPPPP LPGGVCISSP PSLPGGTAIS PPPPLSGDAT IPPPPPLPEG VGIPSPSSLP GGTAIPPPPP LPGSARIPPP PPPLPGSAGI PPPPPPLPGE AGMPPPPPPL

Product Details

	PGGPGIPPPP PFPGGPGIPP PPPGMGMPPP PPFGFGVPAA PVLPFGLTPK KLYKPEVQLR RPNWSKLVAE DLSQDCFWTK VKEDRFENNE LFAKLTLTFS AQTKTSKAKK DQEGGEEKKS VQKKKVKELK VLDSKTAQNL SIFLGSFRMP YQEIKNVILE VNEAVLTESM IQNLIKQMPE PEQLKMLSEL KDEYDDLAES EQFGVVMGTV PRLRPRLNAI LFKLQFSEQV ENIKPEIVSV TAACEELRKS ESFSNLLEIT LLVGNYMNAG SRNAGAFGFN ISFLCKLRDT KSTDQKMTLL HFLAELCEND YPDVLKFPDE LAHVEKASRV SAENLQKNLD QMKKQISDVE RDVQNFPAAT DEKDKFVEKM TSFVKDAQEQ YNKLRMMHSN METLYKELGE YFLFDPKKLS VEEFFMDLHN FRNMFLQAVK ENQKRRETEE KMRRAKLAKE KAEKERLEKQ QKREQLIDMN AEGDETGVMD SLLEALQSGA AFRRKRGPRQ ANRKAGCAVT SLLASELTKD DAMAAVPAKV SKNSETFPTI LEEAKELVGR AS **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: • 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:	DIAPH1

Target Details

Alternative Name:	DIAPH1 (DIAPH1 Products)
Background:	Protein diaphanous homolog 1 (Diaphanous-related formin-1) (DRF1),FUNCTION: Actin nucleation and elongation factor required for the assembly of F-actin structures, such as actin cables and stress fibers (By similarity). Binds to the barbed end of the actin filament and slows down actin polymerization and depolymerization (By similarity). Required for cytokinesis, and transcriptional activation of the serum response factor (By similarity). DFR proteins couple Rho and Src tyrosine kinase during signaling and the regulation of actin dynamics (By similarity). Functions as a scaffold protein for MAPRE1 and APC to stabilize microtubules and promote cell migration (By similarity). Has neurite outgrowth promoting activity. Acts in a Rho-dependent manner to recruit PFY1 to the membrane (By similarity). In hear cells, it may play a role in the regulation of actin polymerization in hair cells (PubMed:20937854, PubMed:21834987, PubMed:26912466). The MEMO1-RHOA-DIAPH1 signaling pathway plays an important role in ERBB2-dependent stabilization of microtubules at the cell cortex (PubMed:20937854, PubMed:21834987). It controls the localization of APC and CLASP2 to the cell membrane, via the regulation of GSK3B activity (PubMed:20937854, PubMed:21834987). In turn, membrane-bound APC allows the localization of the MACF1 to the cell membrane, which is required for microtubule capture and stabilization (PubMed:20937854, PubMed:21834987). Plays a role in the regulation of cell morphology and cytoskeletal organization. Required in the control of cell shape (PubMed:20937854, PubMed:21834987). Plays a role in brain development (PubMed:24781755). Also acts as an actin nucleation and elongation factor in the nucleus by promoting nuclear actin polymerization inside the nucleus to drive serum-dependent SRF-MRTFA activity (By similarity). {ECO:0000250|UniProtKB:O08808, ECO:0000269|PubMed:20937854, ECO:0000269|PubMed:21834987, ECO:0000269|PubMed:24781755, ECO:0000269|PubMed:26912466}.
Molecular Weight:	141.3 kDa
UniProt:	O60610
Pathways:	Sensory Perception of Sound

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