Datasheet for ABIN3092054

DCPS Protein (AA 2-337) (His tag)

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Overview

Quantity:	1 mg
Target:	DCPS
Protein Characteristics:	AA 2-337
Origin:	Human
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Purification tag / Conjugate:	This DCPS protein is labelled with His tag.
Application:	SDS-PAGE (SDS), ELISA, Western Blotting (WB), Crystallization (Crys)

Product Details

Sequence:	ADAAPQLGKR KRELDVEEAH AASTEEKEAG VGNGTCAPVR LPFSGFRLQK VLRESARDKI IFLHGKVNEA SGDGDGEDAV VILEKTPFQV EQVAQLLTGS PELQLQFSND IYSTYHLFPP RQLNDVKTTV VYPATEKHLQ KYLRQDLRLI RETGDDYRNI TLPHLESQSL SIQWVYNILD KKAEADRIVF ENPDPSDGFV LIPDLKWNQQ QLDDLYLIAI CHRRGIRSLR DLTPEHLPLL RNILHQGQEA ILQRYRMKGD HLRVYLHYLP SYYHLHVHFT ALGFEAPGSG VERAHLLAEV IENLECDPRH YQQRTLTFAL RADDPLLKLL QEAQQS **Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.**
Characteristics:	• Made in Germany - from design to production - by highly experienced protein experts. • Human DCPS Protein (raised in E. Coli) purified by multi-step, protein-specific process to ensure crystallization grade. • State-of-the-art algorithm used for plasmid design (Gene synthesis).

Product Details

	This protein is a made to order protein and will be made for the first time for your order. Our experts in the lab will ensure that you receive a correctly folded protein. 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. In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization). When you order this made-to-order protein you will only pay upon receival of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered. The concentration of our recombinant proteins is measured using the absorbance at 280nm. The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer. The concentration of the protein is calculated using its specific absorption coefficient. We use the Expasy's protparam tool to determine the absorption coefficient of each protein.
Purification:	Two step purification of proteins expressed in bacterial culture: 1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. Eluate fractions are analyzed by SDS-PAGE. 2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.
Purity:	>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Sterility:	0.22 µm filtered
Endotoxin Level:	Endotoxin has not been removed. Please contact us if you require endotoxin removal.
Grade:	Crystallography grade

Target Details

Target:	DCPS
Alternative Name:	DCPS (DCPS Products)
Background:	Decapping scavenger enzyme that catalyzes the cleavage of a residual cap structure following

Target Details

	the degradation of mRNAs by the 3'->5' exosome-mediated mRNA decay pathway. Hydrolyzes cap analog structures like 7-methylguanosine nucleoside triphosphate (m7GpppG) with up to 10 nucleotide substrates (small capped oligoribonucleotides) and specifically releases 5'-phosphorylated RNA fragments and 7-methylguanosine monophosphate (m7GMP). Cleaves cap analog structures like tri-methyl guanosine nucleoside triphosphate (m3(2,2,7)GpppG) with very poor efficiency. Does not hydrolyze unmethylated cap analog (GpppG) and shows no decapping activity on intact m7GpppG-capped mRNA molecules longer than 25 nucleotides. Does not hydrolyze 7-methylguanosine diphosphate (m7GDP) to m7GMP (PubMed:22985415). May also play a role in the 5'->3 mRNA decay pathway, m7GDP, the downstream product released by the 5'->3' mRNA mediated decapping activity, may be also converted by DCPS to m7GMP (PubMed:14523240). Binds to m7GpppG and strongly to m7GDP. Plays a role in first intron splicing of pre-mRNAs. Inhibits activation-induced cell death. {ECO:0000269|PubMed:11747811, ECO:0000269|PubMed:12198172, ECO:0000269|PubMed:12871939, ECO:0000269|PubMed:14523240, ECO:0000269|PubMed:15273322, ECO:0000269|PubMed:15383679, ECO:0000269|PubMed:15769464, ECO:0000269|PubMed:16140270, ECO:0000269|PubMed:18426921, ECO:0000269|PubMed:22985415}.
Molecular Weight:	39.4 kDa Including tag.
UniProt:	Q96C86

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 gurantee though.
Comment:	In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	100 mM NaCL, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.

Handling

Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)