

Datasheet for ABIN7564946

SMC1A Protein (AA 1-1233) (His tag)



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Overview

Quantity:	1 mg
Target:	SMC1A
Protein Characteristics:	AA 1-1233
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This SMC1A protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Purpose:	Custom-made recombinat Smc1a Protein expressed in mammalian cells.
Sequence:	<p>MGFLKLIEIE NFKSYKGRQI IGPFQRFTAI IGPNNGSGKSN LMDAISFVLG EKTSNLRVKT</p> <p>LRDLIHGAPV GKPAANRAFV SMVYSEEGAE DRTFARVIVG GSSEYKINN K VVQLHEYSEE</p> <p>LEKLILIKA RNFLVFQGAV ESIA MNPKPE RTALFEEISR SGELAQEYDK RKKEMVKAEE</p> <p>DTQFN YHRKK NIAAERKEAK QEKEEADRYQ RLKDEVVRAQ VQLQLFKLYH NEVEIEKLNK</p> <p>ELASKNKEIE KDKKRMDKVE DELKEKKKEL GKMMREQQKI EKEIKEKDSE LNQKRPQYIK</p> <p>AKENTSHKIK KLEAAKSLQ NAQKH YKKRK GDMDELEKEM LSVEKARQEF EERMEEEESQS</p> <p>QGRDLTLEEN QVKKYHRLKE EASKRAATLA QELEKFNRDQ KADQDRDLDE ERKKVET EAK</p> <p>IKQKLREIEE NQKRIELEE YITTSKQSLE EQKKLEGELT EEVEMAKRRI DEINKELNQV</p> <p>MEQLGDARID RQESSRQQRK AEIMESIKRL YPGSVYGR LI DLCQPTQKKY QIAVTKVLGK</p> <p>NMDAIIVDSE KTRGRDCIQYI KEQRGEPETF LPLDYLEV KP TDEKLRELKG AKLVIDVIRY</p> <p>EPPIKKALQ YACGNALVCD NVEDARRIAF GGHQRHKTVA LDGTLFQKSG VISGGASDLK</p>

AKARRWDEKA VDKLKEKKER LTEELKEQMK AKRKEAELRQ VQSQAHGLQM RLKYSQSDLE
QTKTRHLALN LQEKSKLESE LANFGPRIND IKRIIQSRER EMKDLKEKMN QVEDEVFEFF
CREIGVRNIR EFEEEEKVKRQ NEIAKKRLEF ENQKTRLGIQ LDFEKNQLKE DQDKVHMWEQ
TVKKDENEIE KKKKEEQRHM KIIDETMAQL QDLKNQHLAK KSEVNDKNHE MEEIRKKLGG
ANKEMTHLQK EVTAIETKLE QKRSDRHLL QACKMQDIKL PLSKGTMDI SQEEGSSQGE
ESVSGSQRTS SIYAREALIE IDYGDLCEDL KDAQAEIEIK QEMNTLQQKL NEQQSVLQRI
AAPNMKAMEK LESVRDKFQE TSDEFEAARK RAKKAKQAFE QIKKERFDRF NACFESVATN
IDEIYKALSR NSSAQAFGLP ENPEEPYLDG INYNCVAPGK RFRPMDNLG GEKTVAALAL
LFAIHSYKPA PFFVLDEIDA ALDNTNIGKV ANYIKEQSTC NFQAIVISLK EEFYTKAESL
IGVYPEQGDC VISKVLTFDL TKYPDANPNP NEQ **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:	<p>Key Benefits:</p> <ul style="list-style-type: none">• 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). <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>
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Purity:	> 90 % as determined by Bis-Tris Page, Western Blot
Grade:	custom-made

Target Details

Target:	SMC1A
Alternative Name:	Smc1a (SMC1A Products)

Target Details

Background:	Structural maintenance of chromosomes protein 1A (SMC protein 1A) (SMC-1-alpha) (SMC-1A) (Chromosome segregation protein SmcB) (Sb1.8),FUNCTION: Involved in chromosome cohesion during cell cycle and in DNA repair. Involved in DNA repair via its interaction with BRCA1 and its related phosphorylation by ATM, and works as a downstream effector in the ATM/NBS1 branch of S-phase checkpoint (By similarity). Central component of cohesin complex. The cohesin complex is required for the cohesion of sister chromatids after DNA replication. The cohesin complex apparently forms a large proteinaceous ring within which sister chromatids can be trapped. At anaphase, the complex is cleaved and dissociates from chromatin, allowing sister chromatids to segregate. The cohesin complex may also play a role in spindle pole assembly during mitosis. Involved in DNA repair via its interaction with BRCA1 and its related phosphorylation by ATM, or via its phosphorylation by ATR. Works as a downstream effector both in the ATM/NBS1 branch and in the ATR/MSH2 branch of S-phase checkpoint. {ECO:0000250}.
Molecular Weight:	143.2 kDa
UniProt:	Q9CU62
Pathways:	Stem Cell Maintenance

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 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