Datasheet for ABIN7546063

SMCR8 Protein (AA 1-937) (His tag)

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Overview

Quantity:	1 mg
Target:	SMCR8
Protein Characteristics:	AA 1-937
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This SMCR8 protein is labelled with His tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Purpose:	Custom-made recombinat SMCR8 Protein expressed in mammalien cells.
Sequence:	MISAPDVVAF TKEEEYEEEP YNEPALPEEY SVPLFPFASQ GANPWSKLSG AKFSRDFILI SEFSEQVGPQ PLLTIPNDTK VFGTFDLNYF SLRIMSVDYQ ASFVGHPPGS AYPKLNFVED SKVVLGDSKE GAFAYVHHLT LYDLEARGFV RPFCMAYISA DQHKIMQQFQ ELSAEFSRAS ECLKTGNRKA FAGELEKKLK DLDYTRTVLH TETEIQKKAN DKGFYSSQAI EKANELASVE KSIIEHQDLL KQIRSYPHRK LKGHDLCPGE MEHIQDQASQ ASTTSNPDES ADTDLYTCRP AYTPKLIKAK STKCFDKKLK TLEELCDTEY FTQTLAQLSH IEHMFRGDLC YLLTSQIDRA LLKQQHITNF LFEDFVEVDD RMVEKQESIP SKPSQDRPPS SSLEECPIPK VLISVGSYKS SVESVLIKME QELGDEEYKE VEVTELSSFD PQENLDYLDM DMKGSISSGE SIEVLGTEKS TSVLSKSDSQ ASLTVPLSPQ VVRSKAVSHR TISEDSIEVL STCPSEALIP DDFKASYPSA INEEESYPDG NEGAIRFQAS ISPPELGETE EGSIENTPSQ IDSSCCIGKE SDGQLVLPST PAHTHSDEDG VVSSPPQRHR QKDQGFRVDF SVENANPSSR DNSCEGFPAY ELDPSHLLAS

Product Details

	RDISKTSLDN YSDTTSYVSS VASTSSDRIP SAYPAGLSSD RHKKRAGQNA LKFIRQYPFA HPAIYSLLSG RTLVVLGEDE AIVRKLVTAL AIFVPSYGCY AKPVKHWASS PLHIMDFQKW KLIGLQRVAS PAGAGTLHAL SRYSRYTSIL DLDNKTLRCP LYRGTLVPRL ADHRTQIKRG STYYLHVQSM LTQLCSKAFL YTFCHHLHLP THDKETEELV ASRQMSFLKL TLGLVNEDVR VVQYLAELLK LHYMQESPGT SHPMLRFDYV PSFLYKI **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: • Made to order protein - from design to production - by highly experienced protein experts. • Protein expressed in mammalien 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, Western Blot
Grade:	custom-made

Target Details

Target:	SMCR8
Alternative Name:	SMCR8 (SMCR8 Products)
Background:	Guanine nucleotide exchange protein SMCR8 (Smith-Magenis syndrome chromosomal region candidate gene 8 protein),FUNCTION: Component of the C9orf72-SMCR8 complex, a complex that has guanine nucleotide exchange factor (GEF) activity and regulates autophagy (PubMed:20562859, PubMed:27193190, PubMed:27103069, PubMed:27559131, PubMed:27617292, PubMed:28195531, PubMed:32303654). In the complex, C9orf72 and

Target Details

	SMCR8 probably constitute the catalytic subunits that promote the exchange of GDP to GTP, converting inactive GDP-bound RAB8A and RAB39B into their active GTP-bound form, thereby promoting autophagosome maturation (PubMed:20562859, PubMed:27103069, PubMed:27617292, PubMed:28195531). The C9orf72-SMCR8 complex also acts as a negative regulator of autophagy initiation by interacting with the ULK1/ATG1 kinase complex and inhibiting its protein kinase activity (PubMed:27617292, PubMed:28195531). As part of the C9orf72-SMCR8 complex, stimulates RAB8A and RAB11A GTPase activity in vitro (PubMed:32303654). Acts as a regulator of mTORC1 signaling by promoting phosphorylation of mTORC1 substrates (PubMed:27559131, PubMed:28195531). In addition to its activity in the cytoplasm within the C9orf72-SMCR8 complex, SMCR8 also localizes in the nucleus, where it associates with chromatin and negatively regulates expression of suppresses ULK1 and WIPI2 genes (PubMed:28195531). {ECO:0000269|PubMed:20562859, ECO:0000269|PubMed:27103069, ECO:0000269|PubMed:27193190, ECO:0000269|PubMed:27559131, ECO:0000269|PubMed:27617292, ECO:0000269|PubMed:28195531, ECO:0000269|PubMed:32303654}.
Molecular Weight:	105.0 kDa
UniProt:	Q8TEV9

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