

Datasheet for ABIN3093919

Mre11 Protein (AA 2-708) (His tag)



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1 Image

Overview

Quantity:	1 mg
Target:	Mre11 (MRE11A)
Protein Characteristics:	AA 2-708
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This Mre11 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

Product Details

Sequence:	<p>STADALDDEN TFKILVATDI HLGFMKDAV RGNDTFVTLD EILRLAQENE VDFILLGGDL</p> <p>FHENKPSRKT LHTCLELLRK YCMGDRPVQF EILSDQSVNF GFSKFPWVNY QDGNLNISIP</p> <p>VFSIHGNHDD PTGADALCAL DILSCAGFVN HFGRSMSVEK IDISPVLLQK GSTKIALYGL</p> <p>GSIPDERLYR MFVNKKVTML RPKEDENSWF NLFVIHQNRS KHGSTNFIPE QFLDDFIDL</p> <p>IWGHEHECKI APTKNEQQLF YISQPGSSVV TSLSPGEAVK KHVGLLRIKG RKMNMHMKIPL</p> <p>HTVRQFFMED IVLANHPDIF NPDNPKVTQA IQSFCLEKIE EMLNAERER LGNSHQPEKP</p> <p>LVRLRVDYSG GFEPFVLRF SQKFVDRVAN PKDIIHFFRH REQKEKTGEE INFGKLITKP</p> <p>SEGTTLRVED LVKQYFQTAE KNVQLSLLTE RGMGEAVQEF VDKEEKDAIE ELVKYQLEKT</p> <p>QRFLKERHID ALEDKIDEEV RRFRETRQKN TNEEDDEVRE AMTRARALRS QSEESASAFS</p> <p>ADDLMSIDLA EQMANDSDDS ISAATNKGRG RGRGRRGGRG QNSASRGGSQ RGRADTGLET</p> <p>STRSRNSKTA VSASRNMSII DAFKSTRQQP SRNVTTKNYS EVIEVDES DV EEDIFPTTSK</p> <p>TDQRWSSTSS SKIMSQSQVS KGVDFESSED DDDDPFMNTS SLRRNR</p>
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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 MRE11A Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.
- 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 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 receipt 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 baculovirus infected SF9 insect cells:

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:

Protein is endotoxin free.

Grade:

Crystallography grade

Target Details

Target:	Mre11 (MRE11A)
Alternative Name:	MRE11A (MRE11A Products)
Background:	<p>Component of the MRN complex, which plays a central role in double-strand break (DSB) repair, DNA recombination, maintenance of telomere integrity and meiosis. The complex possesses single-strand endonuclease activity and double-strand-specific 3'-5' exonuclease activity, which are provided by MRE11A. RAD50 may be required to bind DNA ends and hold them in close proximity. This could facilitate searches for short or long regions of sequence homology in the recombining DNA templates, and may also stimulate the activity of DNA ligases and/or restrict the nuclease activity of MRE11A to prevent nucleolytic degradation past a given point (PubMed:9651580, PubMed:9590181, PubMed:9705271, PubMed:11741547). The complex may also be required for DNA damage signaling via activation of the ATM kinase (PubMed:15064416). In telomeres the MRN complex may modulate t-loop formation (PubMed:10888888). {ECO:0000269 PubMed:10888888, ECO:0000269 PubMed:11741547, ECO:0000269 PubMed:15064416, ECO:0000269 PubMed:9590181, ECO:0000269 PubMed:9705271}.</p>
Molecular Weight:	81.4 kDa Including tag.
UniProt:	P49959
Pathways:	DNA Damage Repair

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.
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)

Images



Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process