

Datasheet for ABIN7563643

NSUN2 Protein (AA 1-757) (His tag)



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Overview

Quantity:	1 mg
Target:	NSUN2
Protein Characteristics:	AA 1-757
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This NSUN2 protein is labelled with His tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Purpose:	Custom-made recombinat Nsun2 Protein expressed in mammalian cells.
Sequence:	<p>MGRRARARRR QPPQPEGEE DASDGRKRG QAGWEGGYE IVKENKLFEH YYQELKIVPE</p> <p>GEWDQFMESL REPLPATLRI TGYKSHAKEI LHCLKNKYFK ELEDLEVDGQ KVEVPQPLSW</p> <p>YPEELAWHTN LSRKILRKSP LLAKFHQFLV SETESGNISR QEAVSMIPPL LLNVEPHHKI</p> <p>LDMCAAPGSK TTQLIEMLHA DMSVPFPEGF VIANDVDNKR CYLLVHQAKR LSSPCIMVVN</p> <p>HDASSIPRLT VDVDGRKEIL FYDRILCDVP CSGDGTMRKN IDVWKKWTTL NSLQLHGLQL</p> <p>RIATRGAEL AEGGRMVYST CSLNPVEDEA VIAALLEKSE GALELADVSA ELPGLKWMPG</p> <p>VSQWKVMTRD GQWFADWHEV PQGRHTQIRP TMFPPTDLEK LQAMHLERCL RILPHHQNTG</p> <p>GFFVAVLVKK APMPWNKRQP KVQNKSAEAR EPRVSSHVAA TEGNPSDQSE LESQMITGAG</p> <p>DSETAHNTEN TESNEKKDGV CGPPPSKKMK LFGFKEDPFV FIPEDDPLFP PIEKFYALDP</p> <p>SFPRMNLTR TTEGKKRQLY MVSKELRNV LNNSEKMKVI NTGIKVVCRN NSGEEFDCAF</p> <p>RLAQEGIYTL YPFINSRIIT VSMEDVKTLL TQENPFFRKL SSEAYSQVKD LAKGSVVLKY</p>

EPDSANPDTL QCPIVLCGWR GKASIRTFVP KNERLHYLRM MGLEVLGEKK KEGVILTNN
AASPEQPGDE DAKQTAQDPC VPDSVPGCDA AAAEPSR **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
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Grade:	custom-made
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Target Details

Target:	NSUN2
Alternative Name:	Nsun2 (NSUN2 Products)
Background:	<p>RNA cytosine C(5)-methyltransferase NSUN2 (EC 2.1.1.-) (Myc-induced SUN domain-containing protein) (Misu) (NOL1/NOP2/Sun domain family member 2) (mRNA cytosine C(5)-methyltransferase) (EC 2.1.1.-) (tRNA cytosine C(5)-methyltransferase) (EC 2.1.1.-, EC 2.1.1.203),FUNCTION: RNA cytosine C(5)-methyltransferase that methylates cytosine to 5-methylcytosine (m5C) in various RNAs, such as tRNAs, mRNAs and some long non-coding RNAs (lncRNAs) (PubMed:22144916, PubMed:23871666, PubMed:31199786). Involved in various processes, such as epidermal stem cell differentiation, testis differentiation and maternal to zygotic transition during early development: acts by increasing protein synthesis,</p>

Target Details

cytosine C(5)-methylation promoting tRNA stability and preventing mRNA decay (PubMed:22144916, PubMed:22885326, PubMed:23401851, PubMed:31199786). Methylates cytosine to 5-methylcytosine (m5C) at positions 34 and 48 of intron-containing tRNA(Leu)(CAA) precursors, and at positions 48, 49 and 50 of tRNA(Gly)(GCC) precursors (PubMed:22885326, PubMed:23871666, PubMed:31199786). tRNA methylation is required generation of RNA fragments derived from tRNAs (tRFs) (PubMed:31199786). Also mediates C(5)-methylation of mitochondrial tRNAs (PubMed:31276587, PubMed:31287866). Catalyzes cytosine C(5)-methylation of mRNAs, leading to stabilize them and prevent mRNA decay: mRNA stabilization involves YBX1 that specifically recognizes and binds m5C-modified transcripts (By similarity). Cytosine C(5)-methylation of mRNAs also regulates mRNA export: methylated transcripts are specifically recognized by THOC4/ALYREF, which mediates mRNA nucleo-cytoplasmic shuttling (By similarity). Also mediates cytosine C(5)-methylation of non-coding RNAs, such as vault RNAs (vtRNAs), promoting their processing into regulatory small RNAs (PubMed:23871666). Cytosine C(5)-methylation of vtRNA VTRNA1.1 promotes its processing into small-vault RNA4 (svRNA4) and regulates epidermal differentiation (By similarity). May act downstream of Myc to regulate epidermal cell growth and proliferation (PubMed:16713953). Required for proper spindle assembly and chromosome segregation, independently of its methyltransferase activity (PubMed:19596847). {ECO:0000250|UniProtKB:Q08J23, ECO:0000269|PubMed:16713953, ECO:0000269|PubMed:19596847, ECO:0000269|PubMed:22144916, ECO:0000269|PubMed:22885326, ECO:0000269|PubMed:23401851, ECO:0000269|PubMed:23871666, ECO:0000269|PubMed:31199786, ECO:0000269|PubMed:31276587, ECO:0000269|PubMed:31287866}.

Molecular Weight:	85.5 kDa
UniProt:	Q1HFZ0

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
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Handling

Buffer:	The buffer composition is at the discretion of the manufacturer.
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Handling Advice:	Avoid repeated freeze-thaw cycles.
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Storage:	-80 °C
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Storage Comment:	Store at -80°C.
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Expiry Date:	12 months
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