Datasheet for ABIN7554724

NEMF Protein (AA 1-1076) (His tag)

Go to Product page

Overview

Quantity:	1 mg
Target:	NEMF (SDCCAG1)
Protein Characteristics:	AA 1-1076
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This NEMF protein is labelled with His tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Purpose:	Custom-made recombinat NEMF Protein expressed in mammalien cells.
Sequence:	MKSRFSTIDL RAVLAELNAS LLGMRVNNVY DVDNKTYLIR LQKPDFKATL LLESGIRIHT TEFEWPKNMM PSSFAMKCRK HLKSRRLVSA KQLGVDRIVD FQFGSDEAAY HLIIELYDRG NIVLTDYEYV ILNILRFRTD EADDVKFAVR ERYPLDHARA AEPLLTLERL TEIVASAPKG ELLKRVLNPL LPYGPALIEH CLLENGFSGN VKVDEKLETK DIEKVLVSLQ KAEDYMKTTS NFSGKGYIIQ KREIKPSLEA DKPVEDILTY EEFHPFLFSQ HSQCPYIEFE SFDKAVDEFY SKIEGQKIDL KALQQEKQAL KKLDNVRKDH ENRLEALQQA QEIDKLKGEL IEMNLQIVDR AIQVVRSALA NQIDWTEIGL IVKEAQAQGD PVASAIKELK LQTNHVTMLL RNPYLLSEEE DDDVDGDVNV EKNETEPPKG KKKKQKNKQL QKPQKNKPLL VDVDLSLSAY ANAKKYYDHK RYAAKKTQKT VEAAEKAFKS AEKKTKQTLK EVQTVTSIQK ARKVYWFEKF LWFISSENYL IIGGRDQQQN EIIVKRYLTP GDIYVHADLH GATSCVIKNP TGEPIPPRTL TEAGTMALCY SAAWDARVIT SAWWVYHHQV SKTAPTGEYL TTGSFMIRGK KNFLPPSYLM MGFSFLFKVD

Product Details

	ESCVWRHQGE RKVRVQDEDM ETLASCTSEL ISEEMEQLDG GDTSSDEDKE EHETPVEVEL MTQVDQEDIT LQSGRDELNE ELIQEESSED EGEYEEVRKD QDSVGEMKDE GEETLNYPDT TIDLSHLQPQ RSIQKLASKE ESSNSSDSKS QSRRHLSAKE RREMKKKKLP SDSGDLEALE GKDKEKESTV HIETHQNTSK NVAAVQPMKR GQKSKMKKMK EKYKDQDEED RELIMKLLGS AGSNKEEKGK KGKKGKTKDE PVKKQPQKPR GGQRVSDNIK KETPFLEVIT HELQDFAVDD PHDDKEEQDL DQQGNEENLF DSLTGQPHPE DVLLFAIPIC APYTTMTNYK YKVKLTPGVQ KKGKAAKTAL NSFMHSKEAT AREKDLFRSV KDTDLSRNIP GKVKVSAPNL LNVKRK **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:	NEMF (SDCCAG1)
Alternative Name:	NEMF (SDCCAG1 Products)
Background:	Ribosome quality control complex subunit NEMF (Antigen NY-CO-1) (Nuclear export mediator factor) (Serologically defined colon cancer antigen 1),FUNCTION: Key component of the ribosome quality control complex (RQC), a ribosome-associated complex that mediates the

Target Details

	extraction of incompletely synthesized nascent chains from stalled ribosomes as well as their ubiquitin-mediated proteasomal degradation (PubMed:25578875, PubMed:32726578, PubMed:33406423, PubMed:33909987). Thereby, frees 60S subunit ribosomes from the stalled translation complex and prevents the accumulation of nascent polypeptide chains that are potentially toxic for the cell (PubMed:25578875, PubMed:33406423, PubMed:33909987). Within the RQC complex, NEMF specifically binds stalled 60S ribosomal subunits by recognizing an exposed, nascent chain-conjugated tRNA moiety and promotes the recruitment of LTN1 to stalled 60S subunits (PubMed:25578875). Following binding to stalled 60S ribosomal subunits, NEMF mediates CAT tailing by recruiting alanine-charged tRNA to the A-site and directing the elongation of stalled nascent chains independently of mRNA or 40S subunits, leading to non-templated C-terminal alanine extensions (CAT tails) (PubMed:33406423, PubMed:33909987). Mainly recruits alanine-charged tRNAs, but can also other amino acid-charged tRNAs (PubMed:33406423, PubMed:33909987). CAT tailing is required to promote ubiquitination of stalled nascent chains by different E3 ubiquitin-protein ligases (PubMed:33909987). In the canonical RQC pathway (RQC-L), CAT tailing facilitates LTN1-dependent ubiquitination by exposing lysine residues that would otherwise remain buried in the ribosomal exit tunnel (By similarity). In the alternative RQC pathway (RQC-C) CAT tailing creates an C-degron mainly composed of alanine that is recognized by the CRL2(KLHDC10) and RCHY1/PIRH2 E3 ligases, leading to ubiquitination and degradation of stalled nascent chains (PubMed:33909987). NEMF may also indirectly play a role in nuclear export (PubMed:16103875). {ECO:0000250|UniProtKB:Q12532, ECO:0000269|PubMed:16103875, ECO:0000269|PubMed:25578875, ECO:0000269|PubMed:32726578, ECO:0000269|PubMed:33406423, ECO:0000269|PubMed:33909987}.
Molecular Weight:	123.0 kDa
UniProt:	O60524

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

Handling

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

