Datasheet for ABIN7565021

NMNAT1 Protein (AA 1-285) (His tag)

Go to Product page

Overview

Quantity:	1 mg
Target:	NMNAT1
Protein Characteristics:	AA 1-285
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This NMNAT1 protein is labelled with His tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Purpose:	Custom-made recombinat Nmnat1 Protein expressed in mammalien cells.
Sequence:	MDSSKKTEVV LLACGSFNPI TNMHLRLFEL AKDYMHATGK YSVIKGIISP VGDAYKKKGL IPAHHRIIMA ELATKNSHWV EVDTWESLQK EWVETVKVLR YHQEKLATGS CSYPQSSPAL EKPGRKRKWA DQKQDSSPQK PQEPKPTGVP KVKLLCGADL LESFSVPNLW KMEDITQIVA NFGLICITRA GSDAQKFIYE SDVLWRHQSN IHLVNEWITN DISSTKIRRA LRRGQSIRYL VPDLVQEYIE KHELYNTESE GRNAGVTLAP LQRNAAEAKH NHSTL **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.

Product Details

	• 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:	NMNAT1
Alternative Name:	Nmnat1 (NMNAT1 Products)
Background:	Nicotinamide/nicotinic acid mononucleotide adenylyltransferase 1 (NMN/NaMN adenylyltransferase 1) (EC 2.7.7.1) (EC 2.7.7.18) (Nicotinamide mononucleotide adenylyltransferase 1) (NMN adenylyltransferase 1) (Nicotinate-nucleotide adenylyltransferase 1) (NaMN adenylyltransferase 1),FUNCTION: Catalyzes the formation of NAD(+) from nicotinamide mononucleotide (NMN) and ATP (PubMed:15381699, PubMed:27735788). Can also use the deamidated form, nicotinic acid mononucleotide (NaMN) as substrate with the same efficiency (By similarity). Can use triazofurin monophosphate (TrMP) as substrate (By similarity). Also catalyzes the reverse reaction, i.e. the pyrophosphorolytic cleavage of NAD(+) (By similarity). For the pyrophosphorolytic activity, prefers NAD(+) and NaAD as substrates and degrades NADH, nicotinic acid adenine dinucleotide phosphate (NHD) and nicotinamide guanine dinucleotide (NGD) less effectively (By similarity). Involved in the synthesis of ATP in the nucleus, together with PARP1, PARG and NUDT5 (By similarity). Nuclear ATP generation is required for extensive chromatin remodeling events that are energy-consuming (By similarity). Fails to cleave phosphorylated dinucleotides NADP(+), NADPH and NaADP(+) (By similarity). Also acts as a cofactor for glutamate and aspartate ADP-ribosylation by directing PARP1

Target Details

	catalytic activity to glutamate and aspartate residues on histones (PubMed:32822587). Protects against axonal degeneration following mechanical or toxic insults (PubMed:15310905, PubMed:16914673). Delays axonal degeneration after axotomy. Results in a >10-fold increase in intact neurites 72 hours after injury (PubMed:16914673, PubMed:27735788). {ECO:0000250|UniProtKB:Q9HAN9, ECO:0000269|PubMed:15310905, ECO:0000269|PubMed:15381699, ECO:0000269|PubMed:16914673, ECO:0000269|PubMed:27735788, ECO:0000269|PubMed:32822587}.
Molecular Weight:	32.4 kDa
UniProt:	Q9EPA7

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

