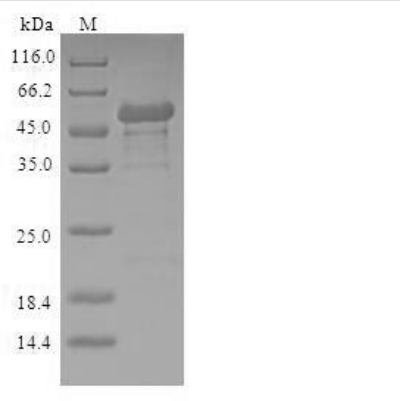
Recombinant Human Nicotinamide mononucleotide adenylyltransferase 1 (NMNAT1)

Product Code	CSB-EP864012HU
Relevance	Catalyzes the formation of NAD+ from nicotinamide mononucleotide (NMN) and ATP. Can also use the deamidated form; nicotinic acid mononucleotide (NaMN) as substrate with the same efficiency. Can use triazofurin monophosphate (TrMP) as substrate. Also catalyzes the reverse reaction, i.e. the pyrophosphorolytic cleavage of NAD+. 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. Involved in the synthesis of ATP in the nucleus, together with PARP1, PARG and NUDT5. Nuclear ATP generation is required for extensive chromatin remodeling events that are energy-consuming. Fails to cleave phosphorylated dinucleotides NADP+, NADPH and NaADP+. Protects against axonal degeneration following mechanical or toxic insults
Abbreviation	Recombinant Human NMNAT1 protein
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	Q9HAN9
Alias	Nicotinamide-nucleotide adenylyltransferase 1
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	MENSEKTEVVLLACGSFNPITNMHLRLFELAKDYMNGTGRYTVVKGIISPVGDA YKKKGLIPAYHRVIMAELATKNSKWVEVDTWESLQKEWKETLKVLRHHQEKLE ASDCDHQQNSPTLERPGRKRKWTETQDSSQKKSLEPKTKAVPKVKLLCGADL LESFAVPNLWKSEDITQIVANYGLICVTRAGNDAQKFIYESDVLWKHRSNIHVV NEWIANDISSTKIRRALRRGQSIRYLVPDLVQEYIEKHNLYSSESEDRNAGVILA PLQRNTAEAKT
Research Area	Epigenetics and Nuclear Signaling
Source	E.coli
Target Names	NMNAT1
Protein Names	Recommended name: Nicotinamide mononucleotide adenylyltransferase 1 Short name= NMN adenylyltransferase 1 EC= 2.7.7.1 Alternative name(s): Nicotinate-nucleotide adenylyltransferase 1 Short name= NaMN adenylyltransferase 1
Expression Region	1-279aa

Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal GST-tagged
Mol. Weight	58.9kDa
Protein Length	Full Length
Image	 (Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.
Shelf Life	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.