# Recombinant Mouse Nmnat1 Protein, Myc/DDK-tagged

**Cat. No.** Nmnat1-4443M **Lot. No.** (See product label)

## SPECIFICATION

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| **Product Overview** | Purified recombinant protein of mouse full-length nicotinamide nucleotide adenylyltransferase 1 (Nmnat1), with C-terminal MYC/DDK tag, expressed in HEK293T cells. |
| **Species** | Mouse |
| **Source** | HEK293 |
| **Description** | 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. Delays axonal degeneration after axotomy. Results in a >10-fold increase in intact neurites 72 hours after injury. |
| **Molecular Mass** | 32.4 kDa |

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| **Purity** | > 80% as determined by SDS-PAGE and Coomassie blue staining |
| **Stability** | Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles. |
| **Storage** | Store at -80 centigrade after receiving vials. |
| **Concentration** | >50 μg/mL as determined by microplate BCA method |
| **Storage Buffer** | 25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol. |

## GENE INFORMATION

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| **Gene Name** | Nmnat1 nicotinamide nucleotide adenylyltransferase 1 [ Mus musculus (house mouse) ] |
| **Official Symbol** | Nmnat1 |
| **Synonyms** | NMNAT1; nicotinamide nucleotide adenylyltransferase 1; nicotinamide mononucleotide adenylyltransferase 1; NAD(+) diphosphorylase; NAD(+) pyrophosphorylase; NMN adenylyltransferase 1; naMN adenylyltransferase 1; deamido-NAD(+) diphosphorylase; deamido-NAD(+) pyrophosphorylase; nicotinate-nucleotide adenylyltransferase 1; nicotinamide mononucleotide adenylyl transferase; nicotinamide/nicotinate mononucleotide adenylyltransferase 1; nmnat; D4Cole1e; 2610529L11Rik; 5730441G13Rik |
| **Gene ID** | 66454 |
| **mRNA Refseq** | NM_133435 |
| **Protein Refseq** | NP_597679 |

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| **UniProt ID** | Q9EPA7 |

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