Recombinant NMNA3 protein (His tag)

Catalog Number	548058
Synonyms	NMN/NaMN adenylyltransferase 3; Nicotinamide-nucleotide adenylyltransferase 3; NMN adenylyltransferase 3; Nicotinate-nucleotide adenylyltransferase 3; NaMN adenylyltransferase 3; Pyridine nucleotide adenylyltransferase 3; PNAT-3
Species	Human
Expression System	E. coli
Accession	Q96T66
Molecular Weight	Predictes a molecular mass of 29.98 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 30 kDa band.

Product Information

Sequence Region	1-252
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>89%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 1-252 aa (Q96T66) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Human NMNAT3 (Nicotinamide/nicotinic acid mononucleotide adenylyltransferase 3) fragment (amino acids 1-252) is a high-purity, soluble protein designed for structural and biochemical studies. This fragment retains key functional regions, enabling research into NAD+ biosynthesis, axonal integrity maintenance, and chaperone activity. NMNAT3 catalyzes the formation of NAD+ from nicotinamide mononucleotide (NMN) or nicotinic acid mononucleotide (NaMN) using ATP, GTP, or ITP as nucleotide donors. It also performs the reverse pyrophosphorolytic cleavage of NAD+ and related dinucleotides but not phosphorylated variants like NADP+. Beyond its enzymatic role, NMNAT3 protects against axonal degeneration post-injury and functions as a stress-response chaperone to prevent toxic protein aggregation, potentially independent of NAD+ synthesis. Located in the mitochondrion, it is implicated in cellular energy metabolism and neuronal health, making it a significant target for neurological and metabolic research.