
Product Data Sheet

Product Name: NMNAT1 Human, Active

Cat. No.: GP22002

Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	NMNAT; NMNAT1; PNAT1; Nicotinamide mononucleotide adenylyltransferase 1; NMN adenylyltransferase 1; Nicotinate-nucleotide adenylyltransferase 1; NaMN adenylyltransferase 1; EC=2.7.7.1; EC=2.7.7.18.		
Amino Acid Sequence	MRGSHHHHHH GMASMTGGQQ MGRDLYDDDD KDRWGSMENS EKTEVVLLAC GSFNPITNMH LRLFELAKDY MNGTGRYTVV KGIISPVGDA YKKKGLIPAY HRVIMAEALAT KNSKWVEVD T WESLQKEWKE TLKVLRRHHQE KLEASDCDHQ QNSPTLERPG RKRKWTETQD SSQKKSLEPK TKAVPKVKLL CGADLLESFA VPNLWKSEDI TQIVANYGLI CVTRAGNDAQ KFIYESDVLW KHRSNIHVVN EWIANDISST KIRRALRRGQSIRYLVPDLV QEYIEKHNLY SSESEDRNAG VILAPLQRNT AEAKT.		
Formulation	The NMNAT1 solution (1mg/ml) contains 20mM Tris-HClbuffer (pH8.0), 20% glycerol, 0.1M NaCl, 1mM DTT and 1mM EDTA.		

Introduction

NMNAT1 enzyme is vital for NAD biosynthesis, catalyzing the condensation of nicotinamide mononucleotide (NMN) or nicotinic acid mononucleotide (NaMN) with the AMP moiety of ATP to form NAD or NaAD. NMNAT1 is widely expressed with high levels in skeletal muscle, heart, liver and kidney. This protein appears to have the ability to protect against axonal degeneration following mechanical or toxic insults.

Biological Activity

Specific activity is > 7,000 pmol/min/ug, and was obtained by measuring the beta-NAD from nicotinamide mononucleotide and ATP per minute at pH 8.0 at 37C.

Stability

Caution: Product has not been fully validated for medical applications. For research use only.

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Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

Background

NMNAT1 Recombinant Human produced in E. Coli is a single, non-glycosylated polypeptide chain containing 315 amino acids (1-279 a.a.) and having a molecular mass of 36 kDa. The NMNAT1 is fused to a 36 amino acid His-Tag at N-terminus and purified by proprietary chromatographic techniques.

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