

## 32-6858: NMNAT1 Human, Active

**Application :** Functional Assay  
NMNAT, NMNAT1, PNAT1, Nicotinamide mononucleotide adenylyltransferase 1, NMN  
**Alternative Name :** adenylyltransferase 1, Nicotinate-nucleotide adenylyltransferase 1, NaMN adenylyltransferase 1,  
EC=2.7.7.1, EC=2.7.7.18.

### Description

Source: Escherichia Coli.

Sterile filtered colorless solution.

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.

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.

### Product Info

**Amount :** 2 µg / 10 µg  
**Purification :** Greater than 95.0% as determined by SDS-PAGE.  
**Content :** The NMNAT1 solution (1mg/ml) contains 20mM Tris-HCl buffer (pH8.0), 20% glycerol, 0.1M NaCl, 1mM DTT and 1mM EDTA.  
**Storage condition :** 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.  
**Amino Acid :** MRGSHHHHHH GMASMTGGQQ MGRDLYDDDD KDRWGSMENS EKTEVVLLAC GSFNPITNMH  
LRLFELAKDY MNGTGRYTVV KGIISPVGDA YKKKGLIPAY HRVIMAEALAT KNSKWVEVDW WESLQKEWKE  
TLKVLRRHHQE KLEASDCDHQ QNSPTLERPG RKRKWTETQD SSQKKSLEPK TKAVPKVKLL CGADLLESFA  
VPNLWKSEDI TQIVANYGLI CVTRAGNDAQ KFIYESDVLW KHRSNIHVVN EWIANDISST  
KIRRALRRGQSIRYLPDLV QEYIEKHNLV SSESEDRNAG VILAPLQRNT AEAKT.

### Application Note

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.