NMNAT3 (human), (recombinant) (His-tag)

Nicotinamide mononucleotide adenyltransferase (NMNAT) catalyzes the formation of nicotinamide adenine dinucleotide (NAD) from nicotinamide mononucleotide (NMN) and ATP. Three NMNAT isoforms (NMNAT 1-3) have been identified with different kinetic parameters and cellular localizations. In humans, NMNAT1 is widely expressed in all tissues, while NMNAT2 and NMNAT3 show a tissue-specific expression and whose mRNA levels are generally lower compared to NMNAT1. NMNAT3 is more strongly expressed in tissues where NMNAT2 is almost absent. While NMNAT1 protein is localized in the nucleus, and NMNAT2 protein is localized in the cytosol, golgi apparatus and endoplasmic reticulum specifically, the NMNAT3 protein is localized in the mitochondria and less is known about it. Human NMNAT3 amino acid sequence is 50% identical to NMNAT1 and 34% identical to NMNAT2. Even though the 3D structure of the NMNAT3 monomer is almost identical to NMNAT1, NMNAT3 forms a tetramer while NMNAT1 forms a hexamer. It has been suggested that NMNAT2 forms a homodimer. The enzyme could be a potential target for therapeutical applications, because its activity is rather low in tumor cells.

Citations: 2 View Online »

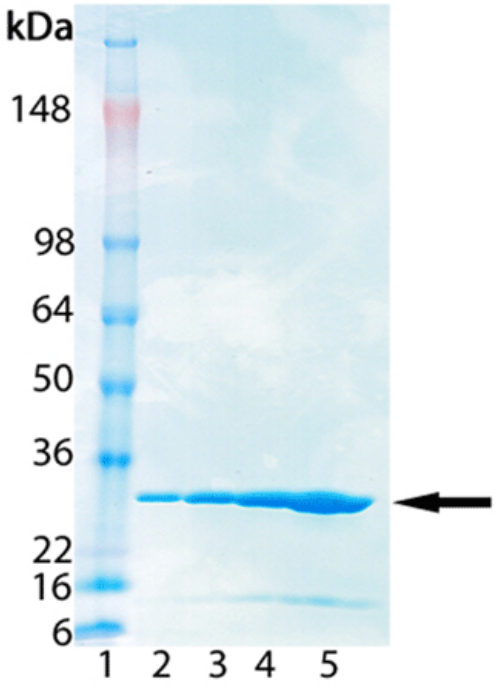
Ordering Information

Order Online »

ALX-201-238-C100	100µg

Manuals, SDS & CofA

View Online »


kDa
148
98
64
50
36
22
16
6
1 2 3 4 5

Handling & Storage

Handling	Avoid freeze/thaw cycles.
Long Term Storage	-80°C
Shipping	Blue Ice

Regulatory Status

RUO - Research Use Only

Product Details

Alternative Name	Nicotinamide mononucleotide adenylyltransferase 3, NMN adenylyltransferase 3
Application Notes	Well suited for the synthesis of NAD analogs due to lower substrate selectivity compared to NMNAT1 (human) (recombinant) (Prod. No. ALX-201-237).
Formulation	Liquid. In 50mM TRIS-HCl, pH 8.0, containing 300mM sodium chloride, 1mM DTT and 10% glycerol.
MW	29kDa (monomer)
Purity	≥95% (SDS-PAGE)
Source	Produced in *E. coli*. Full length human NMNAT3 is fused at the N-terminus to a His-tag.
Specific Activity	≥2 U/mg. One U=1 µmol/min at 30°C. One unit will catalyze the formation of NAD^+ from nicotinamide mononucleotide (NMN) and ATP.
UniProt ID	Q96T66

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