

NMNAT3 Antibody (Center) Blocking peptide
Synthetic peptide
Catalog # BP14087c**Specification**

NMNAT3 Antibody (Center) Blocking peptide - Product InformationPrimary Accession [Q96T66](#)**NMNAT3 Antibody (Center) Blocking peptide - Additional Information****Gene ID** 349565**Other Names**

Nicotinamide mononucleotide adenyltransferase 3, NMN adenyltransferase 3, Nicotinate-nucleotide adenyltransferase 3, NaMN adenyltransferase 3, Pyridine nucleotide adenyltransferase 3, PNAT-3, NMNAT3

Target/Specificity

The synthetic peptide sequence used to generate the antibody AP14087c was selected from the Center region of NMNAT3. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

NMNAT3 Antibody (Center) Blocking peptide - Protein Information**Name** NMNAT3 ([HGNC:20989](#))**Function**

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. Can also use GTP and ITP as nucleotide donors. Also catalyzes the reverse reaction, i.e. the pyrophosphorolytic cleavage of NAD(+). For the pyrophosphorolytic activity, can use NAD(+), NADH, NaAD, nicotinic acid adenine dinucleotide phosphate (NHD), nicotinamide guanine dinucleotide (NGD) as substrates. Fails to cleave phosphorylated dinucleotides NADP(+), NADPH and NaADP(+). Protects against axonal degeneration following injury.

Cellular Location

Mitochondrion

Tissue Location

Expressed in lung and spleen with lower levels in placenta and kidney.

NMNAT3 Antibody (Center) Blocking peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

NMNAT3 Antibody (Center) Blocking peptide - Images**NMNAT3 Antibody (Center) Blocking peptide - Background**

The coenzyme NAD and its derivatives are involved in hundreds of metabolic redox reactions and are utilized in protein ADP-ribosylation, histone deacetylation, and in some Ca^{2+} signaling pathways. NMNAT (EC 2.7.7.1) is a central enzyme in 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 (Zhang et al., 2003 [PubMed 12574164]).

NMNAT3 Antibody (Center) Blocking peptide - References

Di Stefano, M., et al. Blood Cells Mol. Dis. 45(1):33-39(2010) Lau, C., et al. J. Biol. Chem. 285(24):18868-18876(2010) Sorci, L., et al. Biochemistry 46(16):4912-4922(2007) Berger, F., et al. J. Biol. Chem. 280(43):36334-36341(2005) Magni, G., et al. Cell. Mol. Life Sci. 61(1):19-34(2004)