For Research Use Only

β -Nicotinamide Mononucleotide Monoclonal antibody

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Catalog Number:68638-1-Ig

Basic Information

Catalog Number:
68638-1-Ig

Size:
1000 μg/ml

Source:
Mouse

Isotype:
IgG1

GenBank Accession Number:

GeneID (NCBI):

Full Name:

Purification Method:
Protein G purification

CloneNo.:
3A1F11

Recommended Dilutions:
ELISA 1:2000-1:20000

Applications

Tested Applications:
ELISA

Species Specificity:
chemical compound

Positive Controls:

ELISA : β -Nicotinamide Mononucleotide, urine

Background Information

Nicotinamide mononucleotide ("NMN" and " β -NMN") is a nucleotide derived from ribose, nicotinamide, nicotinamide riboside and niacin. In humans, several enzymes use NMN to generate nicotinamide adenine dinucleotide (NADH). In mice, it has been proposed that NMN is absorbed via the small intestine within 10 minutes of oral uptake and converted to nicotinamide adenine dinucleotide (NAD+) through the Slc12a8 transporter. However, this observation has been challenged, and the matter remains unsettled. Maintain cell quality and reduce cell aging with β -nicotinamide mononucleotide (β -NMN), an intermediate in the biosynthesis of nicotinamide adenine dinucleotide (NAD+) (Bogan & Brenner). β -NMN is a product of the nicotinamide phosphoribosyltransferase (NAMPT) reaction and is converted to NAD+ by nicotinamide-nucleotide adenylyltransferase.

Storage

Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:
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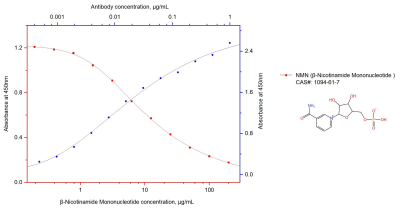
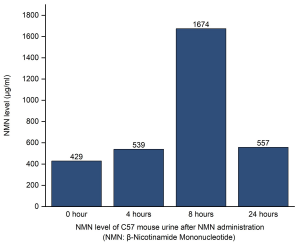
Selected Validation Data



Indirect ELISA and competitive ELISA results show that this antibody is specific to β -Nicotinamide Mononucleotide (NMN). Indirect ELISA was performed by coating BSA conjugated β -Nicotinamide Mononucleotide (NMN) at ~10ng/well followed by blocking with 1% BSA. Serial diluted primary antibody was added to the plates and incubated at 37℃. HRP-goat anti-mouse was used for detection. Competitive ELISA was performed similarly except that different concentration



BSA conjugated β -Nicotinamide Mononucleotide (NMN) was coated in 96 well plate at ~10 ng/well (by NMN amount), followed by blocking with 1% BSA. Different concentrations of NMN standard as well as diluted urine from NMN orally administrated mouse were mixed with 10 ng/mL β -Nicotinamide Mononucleotide antibody 68638-1-Ig respectively. Urine NMN was calculated based on standard curve.