Human NMNAT1 / NMNAT Protein (His Tag)

Catalog Number: **11448-H08B**

General Information

Gene Name Synonym:

LCA9; NMNAT; PNAT1

Protein Construction:

A DNA sequence encoding the human NMNAT1 (Q9HAN9)(Met 1-Thr279) was expressed with a C-terminal polyhistidine tag.

Source: Human

Expression Host: Baculovirus-Insect Cells

QC Testing

Purity: > 85 % as determined by SDS-PAGE

Endotoxin:

< 1.0 EU per μg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 ℃

Predicted N terminal: Met

Molecular Mass:

The secreted recombinant human NMNAT1 consists of 289 amino acids and predicts a molecular mass of 33.3 KDa. The apparent molecular mass of the protein is approximately 34 KDa in SDS-PAGE under reducing conditions due to glycosylation.

Formulation:

Lyophilized from sterile 20mM Tris, 500mM NaCl, 3mM DTT, 10% glycerol, pH 7.4.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

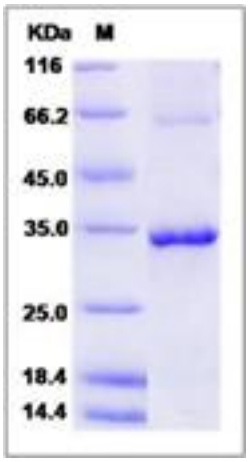
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

NMNAT, also known as NMNAT1, is a member of the Nicotinamide-nucleotide adenylyltransferases. It is widely expressed with high levels in skeletal muscle, heart, liver and kidney. NMNAT appears to have the ability to protect against axonal degeneration following mechanical or toxic insults. 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 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.

References

1.Sugano S. et al., 1994, Gene. 138 (1-2): 171-4. 2.Saccucci F. et al., 2001, J Biol Chem. 276 (1): 406-12. 3.Hennig K. et al., 2001, FEBS Lett. 492 (1-2): 95-100.