Human METTL11A Protein

Catalog Number: **11222-HNCE**

General Information

Gene Name Synonym:

AD-003; C9orf32; HOMT1A; METTL11A; NRMT; NTM1A

Protein Construction:

A DNA sequence encoding the human METTL11A (NP_054783.2) (Thr 2-Arg 223) was expressed and purified, with additional two amino acids (Gly & Pro) at the N-terminus.

Source: Human

Expression Host: E. coli

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Endotoxin:

Please contact us for more information.

Stability:

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

Predicted N terminal: Gly

Molecular Mass:

The recombinant human METTL11A consists of 224 amino acids and has a predicted molecular mass of 25.5 kDa as estimated by SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile 20mM Tris, 150mM NaCl, 10% glycerol, pH 7.5

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:

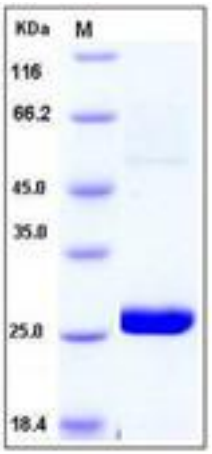
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Methyltransferase-like protein 11A, also known as METTL11A, is a member of the methyltransferase superfamily and METTL11 family. Methyltransferase is a type of transferase enzyme which transfers a methyl group from a donor to an acceptor. Methylation often occurs on nucleic bases in DNA or amino acids in protein structures. Methytransferase uses a reactive methyl group bound to sulfur in S-adenosyl methionine (SAM) as the methyl donor. DNA methylation is often utilized to silence and regulate genes without changing the original DNA sequence. This methylation occurs on cytosine residues. DNA methylation may be necessary for normal growth from embryonic stages in mammals. Methylation can serve to protect DNA from enzymatic cleavage, since restriction enzymes are unable to bind and recognize externally modified sequences. This is especially useful in bacterial restriction modification systems which use restriction enzymes to cleave foreign DNA while keeping their own DNA protected by methylation. Methylation of amino acids in the formation of proteins leads to more diversity of possible amino acids and therefore more diversity of function. The methylation reaction occurs on nitrogen atoms either on the N terminus or side-chain position of the protein and are usually irreversible.

References

1.Hu R.-M., *et al.*,(2000), Gene expression profiling in the human hypothalamus-pituitary-adrenal axis and full-length cDNA cloning. Proc. Natl. Acad. Sci. U.S.A. 97:9543-9548. 2.Ota T., *et al.*, (2004), Complete sequencing and characterization of 21,243 full-length human cDNAs.Nat. Genet. 36:40-45. 3.Humphray S.J., *et al.*,(2004), DNA sequence and analysis of human chromosome 9.Nature 429:369-374.