Recombinant METTL11A (NTMT1) protein, His-Tag

Catalog No: 81062, 81762
Lot No: 27317001
Expressed In: *E. coli*

Quantity: 100, 1000 µg
Concentration: 1 µg/µl
Source: Human

Buffer Contents: Recombinant METTL11A / NTMT1, His-tag protein is supplied in 25 mM Tris-HCl pH 8.0, 300 mM NaCl, 10% glycerol and 0.5 mM TCEP.

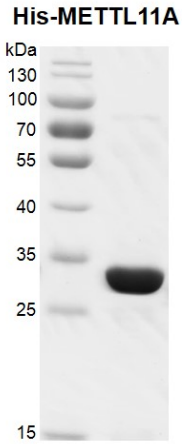
Background: METTL11A (Methyltransferase-Like Protein 11A) / NTMT1 (N-Terminal Xaa-Pro-Lys N-Methyltransferase 1), also known as NRMT1 or NTM1A, is a distributive alpha-N-methyltransferase that methylates the N-terminus of target proteins containing the N-terminal motif [Ala/Gly/Pro/Ser]-Pro-Lys when the initiator Met is cleaved. It specifically catalyzes mono-, di- or tri-methylation of the exposed alpha-amino group of the Ala, Gly or Ser residue in the [Ala/Gly/Ser]-Pro-Lys motif and mono- or di-methylation of Pro in the Pro-Pro-Lys motif. Some of the substrates may be primed by METTL11B-mediated monomethylation. METTL11A catalyzes the trimethylation of the N-terminal Gly in CENPA (after removal of Met- 1). It is also responsible for the N-terminal methylation of KLHL31, MYL2, MYL3, RB1, RCC1, RPL23A and SET. And it is required during mitosis for normal bipolar spindle formation and chromosome segregation via its action on RCC1.

Protein Details: Recombinant METTL11A / NTMT1, His-tag protein was expressed in *E.coli* cells as the full length protein (accession number NP_054783.2) with an N-terminal 6×His tag. The molecular weight of the protein is 28.9 kDa.

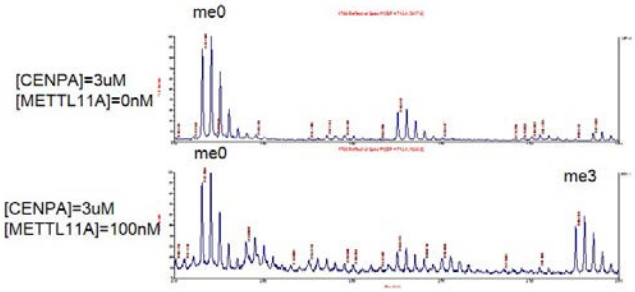
Application Notes: This protein is suitable for use in binding assays, inhibitor screening, and selectivity profiling.

N-terminal Methylation Assay: 3 µM CENP-A peptide (GPRRRSRKPEAPRRR) was incubated with 100 nM METTL11A, His tag protein in reaction buffer including 50 mM Tris-HCl pH 8.6, 0.02% Triton X-100, 2 mM MgCl2, 1 mM TCEP, 50 µM SAM for 2 hours at room temperature. Activity was detected by MALDI-TOF.

Storage and Guarantee: Recombinant proteins in solution are temperature sensitive and must be stored at -80°C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage. This product is for research use only and is not for use in diagnostic procedures. This product is guaranteed for 6 months from date of arrival.



Recombinant METTL11A / NTMT1, His-tag , protein gel
12.5% SDS-PAGE Coomassie staining
MW: 28.9 kDa
Purity: >95%



MALDI-TOF Assay for METTL11A activity
CENP-A peptide was incubated with METTL11A, His tag protein in reaction for 2 hours at room temperature. Activity was detected by MALDI-TOF.