

METTL11A Protein, Human

Cat. No.:	HY-P77447
Synonyms:	N-terminal Xaa-Pro-Lys N-methyltransferase 1; NTM1A; NTMT1; C9orf32; METTL11A; NRMT; NRMT1
Species:	Human
Source:	E. coli
Accession:	Q9BV86 (T2-R223)
Gene ID:	28989
Molecular Weight:	Approximately 25.5 kDa

PROPERTIES

Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of 20 mM Tris, 150 mM NaCl, 10% Glycerol, pH 7.5. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	METTL11A protein functions as a distributive alpha-N-methyltransferase, exhibiting the capability to methylate the N-termini of target proteins that contain the specific N-terminal motif [Ala/Gly/Pro/Ser]-Pro-Lys upon cleavage of the initiator methionine. This enzymatic activity results in mono-, di-, or tri-methylation of the exposed alpha-amino group of Ala, Gly, or Ser residues in the [Ala/Gly/Ser]-Pro-Lys motif, as well as mono- or di-methylation of Pro in the Pro-Pro-Lys motif. Some substrates may undergo priming by NTMT2-mediated monomethylation. METTL11A is responsible for the trimethylation of the N-terminal Gly in CENPA after the removal of Met-1 and plays a crucial role in the N-terminal methylation of various proteins, including KLHL31, MYL2, MYL3, RB1, RCC1, RPL23A, and SET. During mitosis, METTL11A is required for normal bipolar spindle formation and chromosome segregation, exerting its effects through its action on RCC1. These diverse methylation activities highlight METTL11A's role in regulating crucial cellular processes and protein functions.
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Caution: Product has not been fully validated for medical applications. For research use only.

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