

Datasheet for ABIN3120262

## METTL1 Protein (AA 1-268) (Strep Tag)



[Go to Product page](#)

### Overview

|                               |                                                 |
|-------------------------------|-------------------------------------------------|
| Quantity:                     | 250 µg                                          |
| Target:                       | METTL1                                          |
| Protein Characteristics:      | AA 1-268                                        |
| Origin:                       | Mouse                                           |
| Source:                       | Cell-free protein synthesis (CFPS)              |
| Protein Type:                 | Recombinant                                     |
| Purification tag / Conjugate: | This METTL1 protein is labelled with Strep Tag. |
| Application:                  | ELISA, Western Blotting (WB), SDS-PAGE (SDS)    |

### Product Details

|           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Brand:    | ALICE®                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Sequence: | <p>MMAGAEAPQP QKRYRQRAH SNPMADHTLR YPVKPEEMDW SELYPEFFAP LIQNKSHDDP<br/> KDEKEKHSQA QVEFADIGCG YGGLLVALSP LFPDTLILGL EIRVKVSDYV QDRIRALRAA<br/> PGGGFQNIAC LRSNAMKHLP NFFRKGQLAK MFFLFDPDPHF KRTKHKWRRI SPTLLAEYAY<br/> VLRVGGLVYT VTDVPELHEW MCTHFEHPL FERVPLEELS EDPIVEHLGS STEEGKKVLR<br/> NGGKNFPAVF RRIQDPLLQA VTPNPTLP</p> <p><b>Sequence without tag. The proposed Strep-Tag is based on experience s with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.</b></p> |

|                  |                                                                                                                                                             |
|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Characteristics: | <p>Key Benefits:</p> <ul style="list-style-type: none"> <li>Made in Germany - from design to production - by highly experienced protein experts.</li> </ul> |
|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|

## Product Details

---

- Protein expressed with ALiCE® and purified in one-step affinity chromatography
- These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed).
- State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a **made-to-order protein** and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein.

The big advantage of ordering our **made-to-order proteins** in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

### Expression System:

- ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from *Nicotiana tabacum* c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.
- During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

### Concentration:

- The concentration of our recombinant proteins is measured using the absorbance at 280nm.
- The protein's absorbance will be measured against its specific reference buffer.
- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

|               |                                                                                                              |
|---------------|--------------------------------------------------------------------------------------------------------------|
| Purification: | One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®). |
| Purity:       | > 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).                                 |
| Grade:        | custom-made                                                                                                  |

## Target Details

---

|                   |                                            |
|-------------------|--------------------------------------------|
| Target:           | METTL1                                     |
| Alternative Name: | Mettl1 ( <a href="#">METTL1 Products</a> ) |

## Target Details

---

|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Background: | <p>TRNA (guanine-N(7)-)-methyltransferase (EC 2.1.1.33) (Methyltransferase-like protein 1) (mRNA (guanine-N(7)-)-methyltransferase) (EC 2.1.1.-) (miRNA (guanine-N(7)-)-methyltransferase) (EC 2.1.1.-) (tRNA (guanine(46)-N(7))-methyltransferase) (tRNA(m7G46)-methyltransferase),FUNCTION: Catalytic component of METTL1-WDR4 methyltransferase complex that mediates the formation of N(7)-methylguanine in a subset of RNA species, such as tRNAs, mRNAs and microRNAs (miRNAs) (By similarity). Catalyzes the formation of N(7)-methylguanine at position 46 (m7G46) in a large subset of tRNAs that contain the 5'-RAGGU-3' motif within the variable loop (By similarity). M7G46 interacts with C13-G22 in the D-loop to stabilize tRNA tertiary structure and protect tRNAs from decay (By similarity). Also acts as a methyltransferase for a subset of internal N(7)-methylguanine in mRNAs (PubMed:29983320). Internal N(7)-methylguanine methylation of mRNAs in response to stress promotes their relocalization to stress granules, thereby suppressing their translation (PubMed:29983320). Also methylates a specific subset of miRNAs, such as let-7 (By similarity). N(7)-methylguanine methylation of let-7 miRNA promotes let-7 miRNA processing by disrupting an inhibitory secondary structure within the primary miRNA transcript (pri-miRNA) (By similarity). Acts as a regulator of embryonic stem cell self-renewal and differentiation (PubMed:29983320). {ECO:0000255 HAMAP-Rule:MF_03055, ECO:0000269 PubMed:29983320}.</p> |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                   |          |
|-------------------|----------|
| Molecular Weight: | 30.6 kDa |
|-------------------|----------|

|          |                        |
|----------|------------------------|
| UniProt: | <a href="#">Q9Z120</a> |
|----------|------------------------|

## Application Details

---

|                    |                                                                                                                                                                                                              |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Application Notes: | In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though. |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Comment: | <p>ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from <i>Nicotiana tabacum</i> c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.</p> <p>During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!</p> |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Application Details

Restrictions: For Research Use only

Handling

|                  |                                                                                                                                                                  |
|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Format:          | Liquid                                                                                                                                                           |
| Buffer:          | The buffer composition is at the discretion of the manufacturer.<br>Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol <b>Might differ depending on protein.</b> |
| Handling Advice: | Avoid repeated freeze-thaw cycles.                                                                                                                               |
| Storage:         | -80 °C                                                                                                                                                           |
| Storage Comment: | Store at -80°C.                                                                                                                                                  |
| Expiry Date:     | 12 months                                                                                                                                                        |