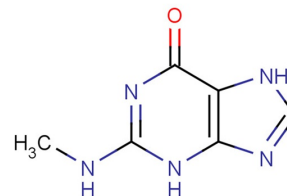


## 2-(Methylamino)-1H-purin-6(7H)-one

## Chemical Properties

|                   |                                                                        |
|-------------------|------------------------------------------------------------------------|
| CAS No.:          | 10030-78-1                                                             |
| Formula:          | C <sub>6</sub> H <sub>7</sub> N <sub>5</sub> O                         |
| Molecular Weight: | 165.15                                                                 |
| Appearance:       | N/A                                                                    |
| Storage:          | 0-4°C for short term (days to weeks), or -20°C for long term (months). |



## Biological Description

|                            |                                                                                                                                                                                                                                                                                                                                                                                                         |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description                | 2-(Methylamino)-1H-purin-6(7H)-one is an endogenous methylated nucleoside found in human fluids, is a modified nucleoside.                                                                                                                                                                                                                                                                              |
| Targets(IC <sub>50</sub> ) | Human Endogenous Metabolite: None                                                                                                                                                                                                                                                                                                                                                                       |
| In vitro                   | 2-(Methylamino)-1H-purin-6(7H)-one (N2-methylguanine) is the principal kinetic barrier for reverse transcription in the 1340 bases proximal to the 5' end of E. coli 16S rRNA. Transcription intermediates correspond to attenuation at the positions of 2-(Methylamino)-1H-purin-6(7H)-one in the rRNA sequence. The relaxation time for elongation of the cDNA through m2G is approximately 3 min[2]. |

## Solubility Information

|            |                                                                                                                    |
|------------|--------------------------------------------------------------------------------------------------------------------|
| Solubility | DMSO: < 1 mg/mL (insoluble or slightly soluble)<br>(< 1 mg/ml refers to the product slightly soluble or insoluble) |
|------------|--------------------------------------------------------------------------------------------------------------------|

## Preparing Stock Solutions

|       | 1mg      | 5mg       | 10mg      |
|-------|----------|-----------|-----------|
| 1 mM  | 6.055 mL | 30.276 mL | 60.551 mL |
| 5 mM  | 1.211 mL | 6.055 mL  | 12.11 mL  |
| 10 mM | 0.606 mL | 3.028 mL  | 6.055 mL  |
| 50 mM | 0.121 mL | 0.606 mL  | 1.211 mL  |

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

## Reference

1. Rife JP, et al. N 2-methylguanosine is iso-energetic with guanosine in RNA duplexes and GNRA tetraloops. Nucleic Acids Res. 1998 Aug 15;26(16):3640-4.
2. Youvan DC, et al. Reverse transcriptase pauses at N2-methylguanine during in vitro transcription of Escherichia coli 16S ribosomal RNA. Proc Natl Acad Sci U S A. 1979 Aug;76(8):3751-4.

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