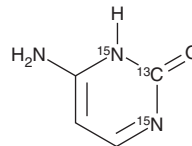


# PRODUCT INFORMATION



**Cytosine-<sup>13</sup>C,<sup>15</sup>N<sub>2</sub>**  
Item No. 41122

**CAS Registry No.:** 181517-10-2  
**Formal Name:** 4-amino-2(1H)-pyrimidinone-2-<sup>13</sup>C-1,3-<sup>15</sup>N<sub>2</sub>  
**Synonym:** 4-Aminouracil-<sup>13</sup>C,<sup>15</sup>N<sub>2</sub>  
**MF:** C<sub>3</sub>[<sup>13</sup>C]H<sub>5</sub>N[<sup>15</sup>N]<sub>2</sub>O  
**FW:** 114.1  
**Purity:** ≥98%  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

## Laboratory Procedures

Cytosine-<sup>13</sup>C,<sup>15</sup>N<sub>2</sub> is supplied as a solid. A stock solution may be made by dissolving the cytosine-<sup>13</sup>C,<sup>15</sup>N<sub>2</sub> in water. Cytosine-<sup>13</sup>C,<sup>15</sup>N<sub>2</sub> is sparingly soluble (1-10 mg/ml) in water. We do not recommend storing the aqueous solution for more than one day.

## Description

Cytosine-<sup>13</sup>C,<sup>15</sup>N<sub>2</sub> is intended for use as an internal standard for the quantification of cytosine (Item No. 36219) by GC- or LC-MS. Cytosine is a pyrimidine base.<sup>1</sup> It forms complementary base pairs with the purine guanine (Item No. 34248) in DNA and RNA and is a precursor of uracil (Item No. 26088). Methylation of cytosine is a key epigenetic mark that plays a role in gene regulation.<sup>2</sup>

## References

1. Berg, J.M., Tymoczko, J.L., and Stryer, L. Nucleotide biosynthesis. *Biochemistry*. 5<sup>th</sup> edition, W.H. Freeman (2002).
2. Breiling, A. and Lyko, F. Epigenetic regulatory functions of DNA modifications: 5-Methylcytosine and beyond. *Epigenetics Chromatin* **8**, 24 (2015).

### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

### WARRANTY AND LIMITATION OF REMEDY

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