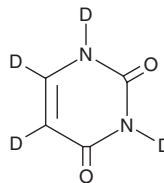


# PRODUCT INFORMATION



## Uracil-d<sub>4</sub> Item No. 36318

**CAS Registry No.:** 24897-55-0  
**Formal Name:** 2,4(1H,3H)-pyrimidinedione-1,3,5,6-d<sub>4</sub>  
**MF:** C<sub>4</sub>D<sub>4</sub>N<sub>2</sub>O<sub>2</sub>  
**FW:** 116.1  
**Chemical Purity:** ≥98% (Uracil)  
**Deuterium Incorporation:** ≥99% deuterated forms (d<sub>1</sub>-d<sub>4</sub>); ≤1% d<sub>0</sub>  
**UV/Vis.:** λ<sub>max</sub>: 258 nm  
**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

Uracil-d<sub>4</sub> is intended for use as an internal standard for the quantification of uracil (item No. 26088) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

Uracil-d<sub>4</sub> is soluble in the organic solvent DMSO at a concentration of approximately 1 mg/ml. Uracil-d<sub>4</sub> is slightly soluble in ethanol and DMF.

### Description

Uracil is a pyrimidine base and a fundamental component of RNA where it binds to adenine *via* hydrogen bonds.<sup>1</sup> It is converted into the nucleoside uridine through the addition of a ribose moiety, then to the nucleotide uridine monophosphate by the addition of a phosphate group.

### Reference

1. Voet, D. and Voet, J.G. *Biochemistry*. 3<sup>rd</sup> ed. John Wiley & Sons, Hoboken N.J. (2004).

#### 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

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 07/18/2024

#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897  
[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM