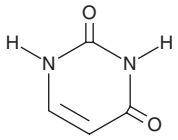
PRODUCT INFORMATION

Uracil

Item No. 26088

CAS Registry No.:	66-22-8
Formal Name:	2,4(1H,3H)-pyrimidinedione
Synonyms:	4-Hydroxyuracil, NSC 3970
MF:	$C_4H_4N_2O_2$
FW:	112.1
Purity:	≥95%
UV/Vis.:	λ_{max}: 259 nm
Supplied as:	A crystalline solid
Storage:	4°C
Stability:	≥4 years



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

Laboratory Procedures

Uracil is supplied as a crystalline solid. A stock solution may be made by dissolving the uracil in the solvent of choice. Uracil is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of uracil in these solvents is approximately 0.8, 50, and 60 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of uracil can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of uracil in PBS, pH 7.2, is approximately 8 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Uracil is a pyrimidine base and a fundamental component of RNA where it binds to adenine *via* hydrogen bonds.[1] 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.* 3rd Edition, John Wiley & Sons (2004).

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