

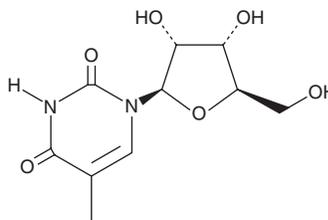
# PRODUCT INFORMATION



## 5-Methyluridine

Item No. 27986

**CAS Registry No.:** 1463-10-1  
**Synonyms:** Ribothymidine, Thymine riboside  
**MF:** C<sub>10</sub>H<sub>14</sub>N<sub>2</sub>O<sub>6</sub>  
**FW:** 258.2  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 267 nm  
**Supplied as:** A crystalline 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

5-Methyluridine is supplied as a crystalline solid. A stock solution may be made by dissolving the 5-methyluridine in the solvent of choice, which should be purged with an inert gas. 5-Methyluridine is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of 5-methyluridine in these solvents is approximately 10 and 16 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 5-methyluridine can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of 5-methyluridine in PBS, pH 7.2, is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

5-Methyluridine is a pyrimidine nucleoside and methylated form of uridine (Item No. 20300).<sup>1</sup> It enhances the antitumor activity of 5-fluorouracil (Item No. 14416) in a mouse Erlich solid carcinoma model and a P388 murine leukemia model. It has been used to characterize the activity of a variety of enzymes, including uridine nucleosidase.<sup>2</sup>

### References

1. Tezuka, M., Chiba, Y., Okada, S., *et al.* Enhancement of antitumor activity of 5-fluorouracil by ribothymidine. *J. Pharmacobiodyn.* **9(8)**, 683-687 (1986).
2. Magni, G., Fioretti, E., Ipata, P.L., *et al.* Bakers' yeast uridine nucleosidase. Purification, composition, and physical and enzymatic properties. *J. Biol. Chem.* **250(1)**, 9-13 (1975).

**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.

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