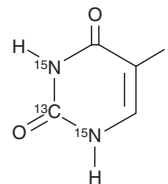


PRODUCT INFORMATION



5-Fluorouracil-¹³C,¹⁵N₂ Item No. 26683

CAS Registry No.: 1189423-58-2
Formal Name: 5-fluoro-2,4(1H,3H)-pyrimidinedione-2-¹³C-1,3-¹⁵N₂
Synonym: 5-FU-¹³C,¹⁵N₂
MF: C₃[¹³C]H₃F[¹⁵N₂]O₂
FW: 133.1
Purity: ≥95%
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

5-Fluorouracil-¹³C,¹⁵N₂ is supplied as a solid. A stock solution may be made by dissolving the 5-fluorouracil-¹³C,¹⁵N₂ in the solvent of choice, which should be purged with an inert gas. 5-Fluorouracil-¹³C,¹⁵N₂ is slightly soluble in methanol and DMSO.

Description

5-Fluorouracil-¹³C,¹⁵N₂ is intended for use as an internal standard for the quantification of 5-fluorouracil (5-FU; Item No. 14416) by GC- or LC-MS. 5-FU is a prodrug form of the thymidylate synthase inhibitor fluorodeoxyuridylate (FdUMP).¹ It is also converted to the active metabolites FUTP and FdUTP, which induce RNA and DNA damage, respectively. *In vivo*, 5-FU (15 mg/kg) when administered in combination with docetaxel (Item No. 11637) reduces tumor growth in B88 and CAL 27 oral squamous cell carcinoma (OSCC) mouse xenograft models.² Formulations containing 5-FU have been used in the treatment of colorectal, breast, gastric, and pancreatic cancers.

Reference

1. Longley, D.B., Harkin, D.P., and Johnston, P.G. 5-fluorouracil: Mechanisms of action and clinical strategies. *Nat. Rev. Cancer* **3**(5), 330-338 (2003).
2. Tamatani, T., Ferdous, T., Takamaru, N., *et al.* Antitumor efficacy of sequential treatment with docetaxel and 5-fluorouracil against human oral cancer cells. *Int. J. Oncol.* **41**(3), 1148-1156 (2012).

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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