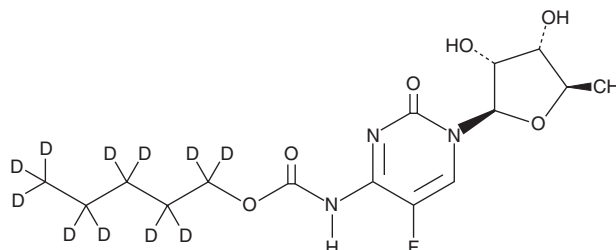


PRODUCT INFORMATION



Capecitabine-d₁₁ Item No. 10010681

CAS Registry No.: 1132662-08-8
Formal Name: 5'-deoxy-5-fluoro-N-[(pentyl-1,1,2,2,3,3,4,4,5,5,5-d₁₁-oxy)carbonyl]-cytidine
MF: C₁₅H₁₁D₁₁FN₃O₆
FW: 370.4
Chemical Purity: ≥95% (Capecitabine)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₁₁); ≤1% d₀
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥2 years



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

Laboratory Procedures

Capecitabine-d₁₁ is intended for use as an internal standard for the quantification of capecitabine (Item No. 10487) 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).

Capecitabine-d₁₁ is supplied as a crystalline solid. A stock solution may be made by dissolving the capecitabine-d₁₁ in the solvent of choice, which should be purged with an inert gas. Capecitabine-d₁₁ is soluble in methanol (warm) and slightly soluble in DMSO.

Description

Capecitabine is a prodrug form of 5-fluorouracil (5-FU; Item No. 14416).¹ It is converted to 5-FU via several enzymatic steps beginning in the liver and ending with conversion in tumor tissue by thymidine phosphorylase, an enzyme that is more concentrated in tumor tissue compared with normal tissue. Capecitabine is cytotoxic only at high concentrations in Scaber, SIHA, and MKN45 cells (IC₅₀s = 97, 578, and 994 μM, respectively) and is inactive in a variety of cancer cell lines, including COLO 205, HCT116, and MCF-7 cells (IC₅₀s = >1,000 μM).

Reference

1. Miwa, M., Ura, M., Nishida, M., *et al.* Design of a novel oral fluoropyrimidine carbamate, capecitabine, which generates 5-fluorouracil selectively in tumours by enzymes concentrated in human liver and cancer tissue. *Eur. J. Cancer* **34(8)**, 1274-1281 (1998).

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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