

# Capecitabine

Catalog No: tcsc0768



## Available Sizes

Size: 1g

Size: 5g

Size: 10g



## Specifications

**CAS No:**

154361-50-9

**Formula:**

$C_{15}H_{22}FN_3O_6$

**Pathway:**

Cell Cycle/DNA Damage;Cell Cycle/DNA Damage

**Target:**

Nucleoside Antimetabolite/Analog;DNA/RNA Synthesis

**Purity / Grade:**

>98%

**Solubility:**

DMSO : 100 mg/mL (278.28 mM; Need ultrasonic); H2O :  $\geq$  33.33 mg/mL (92.75 mM)

**Observed Molecular Weight:**

359.35

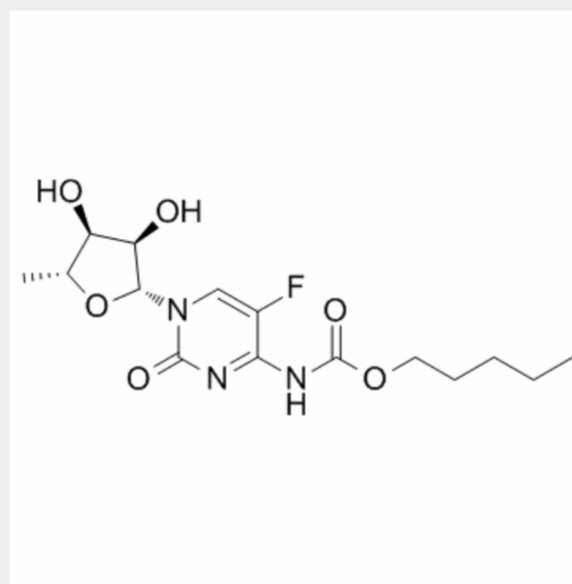
## Product Description

Capecitabine is an oral prodrug that is converted to its only active metabolite, fluorouracil (FU), by thymidine phosphorylase.

IC<sub>50</sub> & Target: DNA/RNA Synthesis<sup>[1]</sup>

**In Vitro:** Capecitabine is an anti-cancer chemotherapy drug. It is classified as an antimetabolite. Capecitabine is converted into 5'-deoxy-5-fluorocytidine (5'DFCR), 5'-deoxy-5-fluorouridine (5'DFUR) and 5-fluorouracil (5-FU) by carboxylesterases (CES1 and 2), cytidine deaminase (CDD), and thymidine phosphorylase (TP), in both liver and tumour. Capecitabine induces a significant cytotoxic effect in vitro only at high concentrations. Mean IC<sub>50</sub> values vary from 860 μM in COLO205 cells to 6000 μM in HCT8 cells<sup>[2]</sup>.

**In Vivo:** A pharmacokinetic/pharmacodynamic study is carried out in mice bearing HCT 116 xenografts receiving 0.52 and 2.1 mmol/kg/d of Capecitabine by oral gavage. Capecitabine administered at 0.52 mmol/kg/day induces partial control of HCT 116 xenografts tumour growth: growth rate = 7.5±0.5 on day 21. Capecitabine 2.1 mmol/kg/day achieves complete control of tumor growth during the treatment period: growth rate = 1±0.2 on day 21<sup>[2]</sup>.



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!