Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

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 : ≥ 33.33 mg/mL (92.75 mM)

Observed Molecular Weight:
359.35

Product Description

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

IC50 & Target: DNA/RNA Synthesis[1]

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_{50} values vary from 860 μM in COLO205 cells to 6000 μM in HCT8 cells[2].

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[2].