

# **Product Introduction**

# Capecitabine

Capecitabine is a tumor-selective fluoropyrimidine carbamate which achieves higher intratumoral 5-FU level with lower toxicity than 5-FU.

#### **Technical Data:**

Molecular Weight (MW):	359.35	F-V-S-OH HO
Formula:	C <sub>15</sub> H <sub>22</sub> FN <sub>3</sub> O <sub>6</sub>	
Solubility (25°C)	DMSO 72 mg/mL	
* <1 mg/ml means slightly	Water 6 mg/mL	
soluble or insoluble:	Ethanol 72 mg/mL	
Purity:	>98%	
Storage:	3 years -20°C Powder	
	6 months-80°Cin DMSO	
CAS No.:	154361-50-9	

### **Biological Activity**

Both LS174T WT and LS174T-c2 cells show significantly greater sensitivity to Capecitabine when cultivated in the same plates as HepG2 hepatoma with IC50 values of 890 and 630  $\mu$ M in LS174T WT alone and cultivated with HepG2, respectively. In addition, for the LS174T-C2 subline, the IC50 falls from 330  $\pm$  4 down to 89  $\pm$  6  $\mu$ m when cultivated in the same plates as hepatoma cells. Furthermore, Capecitabine induces apoptosis in a Fas-dependent manner, and shows a 7-fold higher cytotoxicity and Note: Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk. This item is only for R&D purpose not for commercial business in kilos. Buyers should overview the patent issue in their countries.

markedly stronger apoptotic potential in thymidine phosphorylase (TP)-transfected LS174T-c2 cells. <sup>[1]</sup> In the human cancer xenograft models studied, Capecitabine is more effective in a wider dose range and has a broader spectrum of antitumor activity than 5-FU, UFT or its intermediate metabolite 5'-DFUR, which can be correlated with tumor dThdPase levels. <sup>[2]</sup> Capecitabine inhibits tumor growth and metastatic recurrence after resection of human hepatocellular carcinoma (HCC) in highly metastatic nude mice model which is attributed to the high expression of platelet-derived endothelial cell growth factor in tumors. <sup>[3]</sup> A tumor-selective fluoropyrimidine carbamate.

### References

- [1] Ciccolini J, et al. Mol Cancer Ther. 2002, 1(11), 923-927.
- [2] Ishikawa T, et al. Biochem Pharmacol. 1998, 55(7), 1091-1097.
- [3] Zhou J, et al. Clin Cancer Res. 2003, 9(16), 6030-6037.



Note: Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk. This item is only for R&D purpose not for commercial business in kilos. Buyers should overview the patent issue in their countries.

