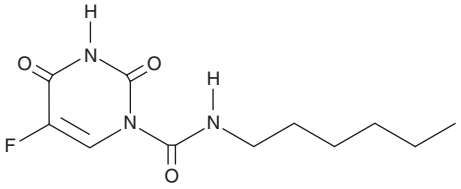
PRODUCT INFORMATION

Carmofur

Item No. 14243

CAS Registry No.:	61422-45-5
Formal Name:	5-fluoro-N-hexyl-3,4-dihydro-2H,4-dioxo-1-pyrimidinecarboxamide
Synonym:	HCFU
MF:	$C_{11}H_{16}FN_3O_3$
FW:	257.3
Purity:	≥98%
UV/Vis.:	λ_{max}: 211, 258 nm
Supplied as:	A crystalline 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

Carmofur is supplied as a crystalline solid. A stock solution may be made by dissolving the carmofur in the solvent of choice, which should be purged with an inert gas. Carmofur is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of carmofur in these solvents is approximately 5, 20, and 30 mg/ml, respectively.

Carmofur is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, carmofur should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Carmofur has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Carmofur is an inhibitor of acid ceramidase (IC_{50} = 79 nM for the rat enzyme) and a derivative of 5-flurouracil (Item No. 14416).[1] It reduces acid ceramidase activity in a dose- and time-dependent manner and induces intracellular accumulation of various ceramide species, including C18 ceramide (Item No. 19556), C16 ceramide (Item No. 24426), and C14 ceramide (Item No. 22531) in SW403 colon and LNCaP prostate cancer cells. Carmofur induces apoptosis in SW403 cells without inhibiting DNA synthesis (IC_{50} = 1,212 mM for human thymidylate synthetase). It also reduces acid ceramidase activity and increases ceramide accumulation in mouse lung and brain when administered at doses of 10 and 30 mg/kg.

Reference

1. Realini, N., Solorzano, C., Pagliuca, C., *et al.* Discovery of highly potent acid ceramidase inhibitors with *in vitro* tumor chemosensitizing activity. *Sci. Rep.* **3(1035)**, 1-7 (2013).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM