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

Chlorambucil

Catalog No: tcsc3118

Available Sizes

Size: 100mg

Size: 500mg

Specifications

CAS No:
305-03-3

Formula:
$C_{14}H_{19}Cl_2NO_2$

Pathway:
Cell Cycle/DNA Damage

Target:
DNA Alkylator/Crosslinker

Purity / Grade:
>98%

Solubility:
DMSO : ≥ 24 mg/mL (78.89 mM)

Alternative Names:
CB-1348;WR-139013

Observed Molecular Weight:
304.21

Product Description

Chlorambucil is an **alkylating** agent with antitumor activity.

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IC50 & Target: DNA Alkylator[1]

In Vitro: Chlorambucil can deprive the function of complementary strands of DNA molecules via alkalization-induced cross interaction, and then inhibits tumor cell proliferation. Chlorambucil (0, 2.5, 5, 10 μM) exhibits slight inhibitory effect on Raji cell apoptosis, but potently increases DR4 and DR5 mRNA expression in Raji cells. Chlorambucil (10 μM) in combination with Tumor necrosis factor (TNF) related apoptosis inducing ligand (TRAIL, 80 ng/ml) has synergistic effect on Raji cell apoptosis and inhibition on proliferation[1].

In Vivo: Chlorambucil (0.2 mg/kg, p.o.) in combination with levamisole (5 mg/kg) has enhanced anti-cancer effect on Ehrlich ascites carcinoma which elevates apoptosis of Ehrlich ascites carcinoma and the survival rate of the mice. However, Chlorambucil exhibits adverse effects on the liver and kidneys of mice[2].