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

Lomustine

Catalog No: tcsc1461

Available Sizes

Size: 200mg

Size: 500mg

Specifications

CAS No:
13010-47-4

Formula:
$C_9H_{16}ClN_3O_2$

Pathway:
Cell Cycle/DNA Damage;Autophagy

Target:
DNA Alkylator/Crosslinker;Autophagy

Purity / Grade:
>98%

Solubility:
DMSO : ≥ 100 mg/mL (427.90 mM)

Alternative Names:
CCNU; NSC 79037

Observed Molecular Weight:
233.7

Product Description

Lomustine (CCNU) is a **DNA alkylating** agent, with antitumor activity.

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IC50 & Target: DNA Alkylator[1]

In Vitro: Lomustine (CCNU) is a DNA alkylating agent. Lomustine (CCNU, 0-250 μM) is cytotoxic to the U87-MG cells expressing tumor-derived mutant IDH1, and has little effect on the expression of wild-type IDH1. The combination of Lomustine and procarbazine or vincristine has no additive effect on the killing of cells expressing mutant or wild-type IDH1. Moreover, overexpression of either ALKBH2 or ALKBH3 partially reduces the death HT1080 cells exposed to Lomustine[1]. Lomustine (CCNU) suppresses U87-MG growth with an ED50 of 68.1 μM. Lomustine (CCNU) (30, 40 μM) in combination with docosahexaenoic acid (DHA) darmatically inhibits 2 additional human-derived glioblastoma cell lines, and induces U87-MG apoptosis and necrosis. Lomustine (30 μM) causes G2/M arrest[2]. Lomustine (CCNU) reduces the viability of F98 rat orthotopic glioma cells and Tu-2449 mouse glioma cell line, with IC_{50}s of 20.8 μM and 18.6 μM, respectively[3].

In Vivo: Lomustine (CCNU) (30 mg/kg) in combination with Toca 511 + 5-FC prolongs survival in rats bearing F98 tumor cells. Lomustine (CCNU) (30 mg/kg) combined with Toca-511 + 5-FC also exhibits antitumor activity in the B6C3F1 mice bearing Tu-2449 glioma cells[3].