

# 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 :  $\geq 100$  mg/mL (427.90 mM)

**Alternative Names:**

CCNU; NSC 79037

**Observed Molecular Weight:**

233.7

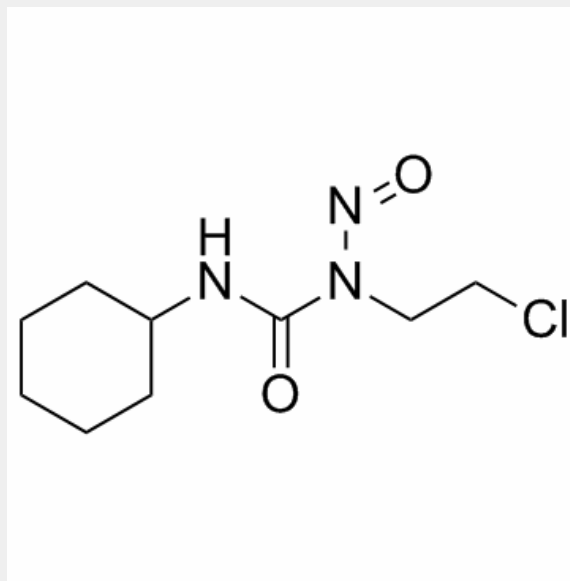
## Product Description

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

IC50 & Target: DNA Alkylator<sup>[1]</sup>

***In Vitro:*** Lomustine (CCNU) is a DNA alkylating agent. Lomustine (CCNU, 0-250  $\mu$ M) 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<sup>[1]</sup>. Lomustine (CCNU) suppresses U87-MG growth with an ED50 of 68.1  $\mu$ M. Lomustine (CCNU) (30, 40  $\mu$ M) in combination with docosahexaenoic acid (DHA) dramatically inhibits 2 additional human-derived glioblastoma cell lines, and induces U87-MG apoptosis and necrosis. Lomustine (30  $\mu$ M) causes G2/M arrest<sup>[2]</sup>. Lomustine (CCNU) reduces the viability of F98 rat orthotopic glioma cells and Tu-2449 mouse glioma cell line, with IC<sub>50</sub>s of 20.8  $\mu$ M and 18.6  $\mu$ M, respectively<sup>[3]</sup>.

***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<sup>[3]</sup>.



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!