

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

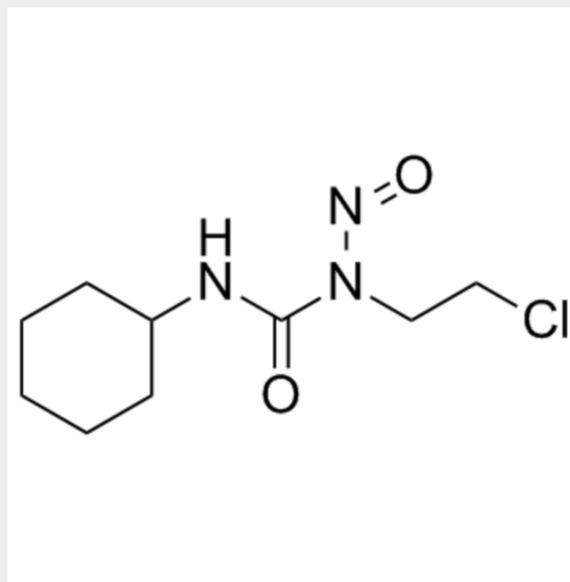
Product Description

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

IC50 & Target: DNA Alkylator^[1]

In Vitro: Lomustine (CCNU) is a DNA alkylating agent. Lomustine (CCNU, 0-250 μ 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^[1]. Lomustine (CCNU) suppresses U87-MG growth with an ED50 of 68.1 μ M. Lomustine (CCNU) (30, 40 μ 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 μ M) causes G2/M arrest^[2]. Lomustine (CCNU) reduces the viability of F98 rat orthotopic glioma cells and Tu-2449 mouse glioma cell line, with IC₅₀s of 20.8 μ M and 18.6 μ M, 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].



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