

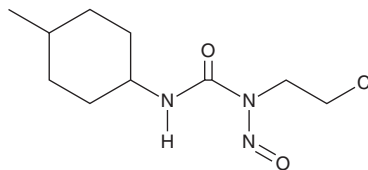
PRODUCT INFORMATION



Semustine

Item No. 39133

CAS Registry No.: 13909-09-6
Formal Name: N-(2-chloroethyl)-N'-(4-methylcyclohexyl)-N-nitroso-urea
Synonyms: MeCCNU, Methyl-CCNU, Methyl Lomustine
MF: $C_{10}H_{18}ClN_3O_2$
FW: 247.7
Purity: $\geq 95\%$
Supplied as: A solid
Storage: $-20^{\circ}C$
Stability: ≥ 4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Semustine is supplied as a solid. A stock solution may be made by dissolving the semustine in the solvent of choice, which should be purged with an inert gas. Semustine is soluble (≥ 10 mg/ml) in ethanol and DMSO.

Description

Semustine is a DNA alkylating agent.¹ It induces DNA cross-linking in isolated calf thymus DNA when used at a concentration of 2 mM. Semustine induces cytotoxicity in three patient-derived astrocytoma cell lines in a concentration-dependent manner.² It increases survival in a patient-derived xenograft (PDX) mouse model of brain cancer when administered at a dose of 30 mg/kg twice per week.³

References

1. Brent, T.P. Suppression of cross-link formation in chloroethylnitrosourea-treated DNA by an activity in extracts of human leukemic lymphoblasts. *Cancer Res.* **44**(5), 1887-1892 (1984).
2. Rubin, N.H., Casartelli, C., Macik, B.G., et al. *In vitro* cellular characteristics and survival responses of human astrocytoma clones to chloroethyl-nitrosoureas and dianhydrogalactitol. *Invest New Drugs* **1**(2), 129-137 (1983).
3. Shapiro, W.R., Basler, G.A., Chernik, N.L., et al. Human brain tumor transplantation into nude mice. *J. Natl. Cancer Inst.* **62**(3), 447-453 (1979).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 02/21/2025

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