

Product Specification Sheet

Product Name: Temozolomide

Catalog Number: C8366

Technical information:

Chemical Formula: $C_6H_6N_6O_2$

CAS #: 85622-93-1

Molecular Weight: 194.15

Purity: > 99%

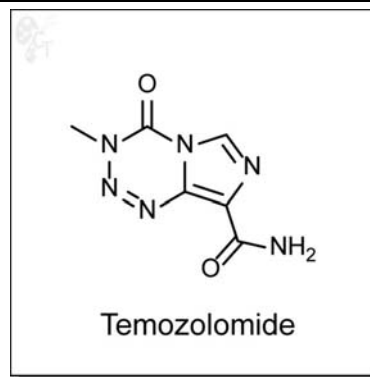
Appearance: White solid

Solubility: Soluble in DMSO up to 100 mM

Chemical Name: 4-methyl-5-oxo-2,3,4,6,8-pentazabicyclo [4.3.0] nona-2,7,9-triene-9-carboxamide

Storage: Store solid powder at 4°C desiccated; Store DMSO solution at -20°C.

Shelf Life: In the unopened package, powder is stable for 1 year and DMSO solution is stable for 6 months under proper storage condition.



- Handling:**
- To make 10 mM stock solution, add 0.515 mL of DMSO for each mg of Temozolomide.
 - For DMSO solution, briefly spin the vial at 500 rpm in a 50 mL conical tube to ensure maximum sample recovery.

Biological Activity: Temozolomide is an highly orally-available, imidazotetrazine-based, monofunctional DNA alkylating agent. In vivo it spontaneously degrades and reacts with water to release a methyldiazonium cation which preferentially methylates DNA at N7 positions of guanine in guanine rich regions. The active agent also methylates N3 adenine and O6 guanine. [1]

Temozolomide, which enters the cerebrospinal fluid and does not require hepatic metabolism, demonstrates schedule-dependent antitumor activity against highly-resistant gliomas. [2] In Phase 1 clinical studies, temozolomide showed 100% p.o. bioavailability.

In L-1210 leukemia cells, temozolomide caused a dose-dependent accumulation of cells in the SL-G2-M phase. [3]

- Reference:**
1. Zhang et al., Temozolomide: mechanisms of action, repair and resistance. *Curr. Mol. Pharmacol.* 2012, 5, 102-114. Pubmed ID: 22122467
 2. Friedman et al., Temozolomide and treatment of malignant glioma. *Clin. Cancer Res.* 2000, 6, 2585-2597. Pubmed ID: 10914698
 3. Catapano et al., In vitro and in vivo methazolastone-induced DNA damage and repair in L-1210 leukemia sensitive and resistant to chloroethylnitrosoureas. *Cancer Res.* 1987, 47, 4884-4889. Pubmed ID: 3621181

To reorder: <http://www.cellagentech.com/Temozolomide/>

For Technical Support: technical@cellagentech.com

Chemicals are sold for research use only, not for clinical or diagnostic use.