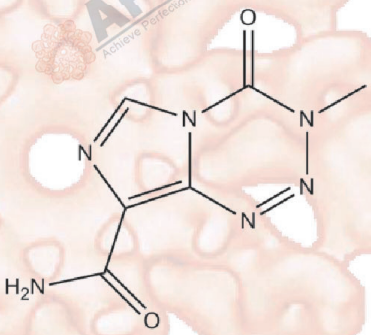
Product Data Sheet

Temozolomide

Cat. No.: B1399
CAS No.: 85622-93-1
Formula: C6H6N6O2
M.Wt: 194.15
Synonyms:
Target: dsDNA
Pathway: DNA Damage
Storage: Store at -20°C, sealed storage, away from moisture and light



Solvent & Solubility

In Vitro

insoluble in EtOH; insoluble in H2O; ⩾29.61 mg/mL in DMSO

Preparing Stock Solutions

Concentration \ Solvent \ Mass	1mg	5mg	10mg
1 mM	5.1507 mL	25.7533 mL	51.5066 mL
5 mM	1.0301 mL	5.1507 mL	10.3013 mL
10 mM	0.5151 mL	2.5753 mL	5.1507 mL

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary	DNA methylating, chemotherapeutic agent
IC_{50} & Target	

In Vitro

Cell Viability Assay

Cell Line:	SK-LMS-1 leiomyosarcoma (MGMT-/p53+), Ewing sarcoma A-673 and GIST-T1 (both lines with MGMT+/p53- phenotype), and glioblastoma T98G (MGMT+/p53+)
Preparation method:	The solubility of this compound in DMSO is >6.6mg/mL. General tips for obtaining a higher concentration: Please warm the tube at 37°C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored

		below -20°C for several months.
	Reacting conditions:	62.5, 125, 250 and 500 μM; 72 h
	Applications:	In SK-LMS-1 cells, Temozolomide inhibited proliferative activity of SK-LMS-1 cells. A-673 cells was most sensitive to temozolomide, the effect was time- and dose-dependent. Preincubation of Ewing sarcoma cells with O6-benzylguanine potentiated the cytotoxic effect of the alkylating agent and reduced viability of tumor cells. GIST-T1 cells were insensitive to temozolomide.
In Vivo	**Animal experiment**	
	Animal models:	PARP1 wild - type (WT) and PARP1 knock - out (KO) mice
	Dosage form:	68 mg/kg; once daily for 5 days; orally administrated
	Applications:	In PARP1 WT mice, temozolomide significantly lowered concentrations of NAD+ in the liver when compared with the control group (by 22%, p = 0.02). In the livers of PARP1 KO mice, there was also a statistically significant reduction in NAD+ in the temozolomide - only group when compared with the control (by 22%, p = 0.03).
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

See more customer validations on www.apexbt.com.

References

[1] Khusnutdinov RR1, Boichuk SV2. Mechanisms of Sensitivity of Soft Tissue Sarcoma Cells to Temozolomide. Bull Exp Biol Med. 2017 Jul 18.

[2]. Almeida GS1, Bawn CM1, Galler M1, et al. PARP inhibitor rucaparib induces changes in NAD levels in cells and liver tissues as assessed by MRS. NMR Biomed. 2017 May 22.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt

of the product, follow the storage recommendations on the product data sheet.

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