

Temozolomide

Catalog No: tcsc0943



Available Sizes

Size: 10mg

Size: 50mg

Size: 100mg

Size: 200mg

Size: 500mg

Size: 1g



Specifications

CAS No:

85622-93-1

Formula:

$C_6H_6N_6O_2$

Pathway:

Cell Cycle/DNA Damage;Autophagy

Target:

DNA Alkylator/Crosslinker;Autophagy

Purity / Grade:

>98%

Solubility:

DMSO : 75 mg/mL (386.30 mM; Need ultrasonic)

Alternative Names:

NSC 362856;CCRG 81045;TMZ

Observed Molecular Weight:

194.15

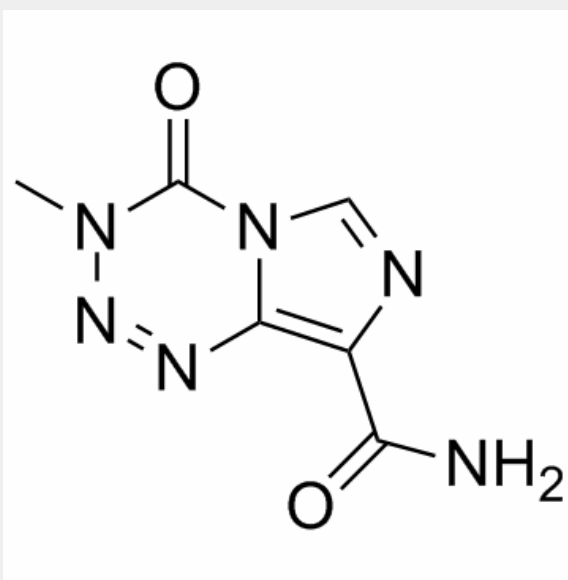
Product Description

Temozolomide (NSC 362856; CCRG 81045) is an oral **DNA alkylating** agent used to treat some brain cancers.

IC₅₀ & Target: DNA alkylator^[1]

In Vitro: Temozolomide (TZA) is a methylating agent that crosses the blood-brain barrier and is indicated for malignant gliomas and metastatic melanomas. Temozolomide is effective against tumor cells that are characterized by low levels of O⁶-alkylguanine DNA alkyltransferase (OGAT) and a functional mismatch repair system (MR)^[1]. Determination of the IC₅₀ for Temozolomide (TZA) in different cell lines gave values ranging from 14.1 to 234.6 μM that fell into two clearly differentiated groups: cell lines with low IC₅₀ values (50 values (>100 μM), which include SF268 (147.2±2.1 μM) and SK-N-SH cells (234.6±2.3 μM)^[2].

In Vivo: Temozolomide (TZA), as a single agent, does not significantly increase median survival time (MST) with respect to control. Noteworthy, intracranial injection of NU1025, immediately before the administration of 100 or 200 mg/kg Temozolomide, significantly increases lifespans with respect to controls or to groups treated with Temozolomide only. When Temozolomide is fractionated, the increase in lifespan (ILS) obtained with this schedule is higher than that observed when NU1025 is combined with a single injection of Temozolomide (statistical comparison of survival curves: NU1025 intracranially+Temozolomide 100 mg/kg×2 vs NU1025+Temozolomide 200 mg/kg; P=0.023)^[1].



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