

Product Data Sheet

Product Name: Temozolomide-¹⁵N

Cat. No.: GC81890

Chemical Properties

Cas. No.

Formula $C_6H_6N_5^{15}NO_2$ M.Wt 195.14

Solubility Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure



Background

Temozolomide - 15 N (NSC 362856- 15 N) is the 15 N-labeled Temozolomide. Temozolomide (NSC 362856) is an oral active DNA alkylating agent that crosses the blood-brain barrier. Temozolomide is also a proautophagic and proapoptotic agent. Temozolomide is effective against tumor cells that are characterized by low levels of O6-alkylguanine DNA alkyltransferase (OGAT) and a functional mismatch repair system. Temozolomide has antitumor and antiangiogenic effects [1] [2].

In Vitro, Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into

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drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs.

References:

- [1]. Tentori L, et al. Combined treatment with temozolomide and poly(ADP-ribose) polymerase inhibitor enhances survival of mice bearing hematologic malignancy at the central nervous system site. *Blood*. 2002 Mar 15;99(6):2241-4.
- [2]. Mathieu V, et al. Combining Anti-Human VEGF with temozolomide increases the antitumor efficacy of temozolomide in a human glioblastoma orthotopic xenograft model. *Neoplasia*. 2008 Dec;10(12):1383-92.
- [3]. Perazzoli G, et al. Temozolomide Resistance in Glioblastoma Cell Lines: Implication of MGMT, MMR, P-Glycoprotein and CD133 Expression. *PLoS One*. 2015 Oct 8;10(10):e0140131.

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