SZABO SCANDIC

Part of Europa Biosite

Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!

Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

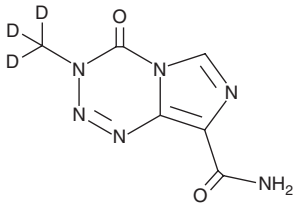
linkedin.com/company/szaboscandic

PRODUCT INFORMATION

Temozolomide-d_3

Item No. 22372

CAS Registry No.:	208107-14-6
Formal Name:	3,4-dihydro-3-(methyl-d_3)-4-oxo-imidazo[5,1-d]-1,2,3,5-tetrazine-8-carboxamide
Synonyms:	Methazolastone-d_3, TMZ-d_3
MF:	$C_6H_3D_3N_6O_2$
FW:	197.2
Chemical Purity:	≥98% (Temozolomide)
Deuterium Incorporation:	≥99% deuterated forms (d_1-d_3); ≤1% d_0
UV/Vis.:	λ_{max}: 252, 326 nm
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years



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

Laboratory Procedures

Temozolomide-d_3 (TMX-d_3) is intended for use as an internal standard for the quantification of temozolomide (Item No. 18863).[1] The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated *versus* unlabeled).

TMX-d_3 is supplied as a solid. A stock solution may be made by dissolving the TMX-d_3 in the solvent of choice, which should be purged with an inert gas. TMX-d_3 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of TMX-d_3 in these solvents is approximately 5 mg/ml.

Description

It is converted to MTIC in a non-enzymatic manner under physiological conditions. Temozolomide is selectively cytotoxic to U87 and D54 glioblastoma cells, which do not express O^6-methylguanine-DNA methyltransferase (MGMT), over MGMT-expressing T98G and U3054MG glioblastoma cells (IC_{50}s = 51, 12, 660, and 370 µM, respectively).[2] It increases survival in a Br23c glioblastoma orthotopic mouse xenograft model when administered at a dose of 15 mg/kg. Temozolomide, in combination with antibodies targeting CD47, decreases tumor volume and increases the number of tumor-infiltrating $CD4^+$ and $CD8^+$ T cells in a GL261 murine glioma model.[3] Formulations containing temozolomide have been used in the treatment of glioblastoma multiforme (GBM) and refractory anaplastic astrocytoma.

References

1. Tsang, L.L.H., Quarterman, C.P., Gescher, A., *et al.* Comparison of the cytotoxicity *in vitro* of temozolomide and dacarbazine, prodrugs of 3-methyl-(triazen-1-yl)imidazole-4-carboxamide. *Cancer Chemother. Pharmacol.* **27(5)**, 342-346 (1991).
2. Svec, R.L., Furiassi, L., Skibinski, C.G., *et al.* Tunable stability of imidazotetrazines leads to a potent compound for glioblastoma. *ACS Chem. Biol.* **13(11)**, 3206-3216 (2018).
3. von Roemeling, C.A., Wang, Y., Qie, Y., *et al.* Therapeutic modulation of phagocytosis in glioblastoma can activate both innate and adaptive antitumour immunity. *Nat. Commun.* **11(1)**, 1508 (2020).

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