

Temozolomide

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Brand name: Temodar®

IUPAC: 3-methyl-4-oxoimidazo[5,1-d][1,2,3,5]tetrazine-8-carboxamide

FDA approval: Yes

[Manufacturer Link](#)

Usage:

Temozolomide (Temodar®) is an alkylating agent used primarily to treat refractory brain tumors (astrocytomas) in adult patients. It may also be used in the treatment of metastatic melanoma and glioblastoma multiforme (GBM). Temozolomide is administered in capsule form.¹

- ¹Chu, E., & DeVita, V. T. (2015). Physicians' cancer chemotherapy drug manual 2015. Burlington, MA: Jones & Bartlett Learning.

Mechanism:

Temozolomide is a non classic alkylating agent that creates fragmented DNA and prevents DNA and RNA protein synthesis. Different from other drugs, Temozolomide does not inhibit through cross-linking with DNA.¹

Stick

Sphere

Line

Rotate

The diagram above shows the 3D molecular structure of Temozolomide.

- ¹Chu, E., & DeVita, V. T. (2015). Physicians' cancer chemotherapy drug manual 2015. Burlington, MA: Jones & Bartlett Learning.

Side effects:

Common side effects include nausea and vomiting, headache, fatigue, myelosuppression (reduced bone marrow activity). Women who are or plan to become pregnant should consult with their physician before beginning treatment with this drug. ¹

- ¹Temodar.. Prescribing Information. Schering Corporation. 2008. [https://www.merck.com/product/usa/pi_circulars/t/temodar_capsules/temodar_pi.pdf]