

Open Peer Review on Qeios

Tretazicar

National Cancer Institute

Source

National Cancer Institute. <u>Tretazicar</u>. NCI Thesaurus. Code C81554.

A prodrug of a bifunctional alkylating, dinitrobenzamide derivative with antineoplastic activity. Tretazicar can be activated by the human enzyme quinone oxidoreductase 2 (NQO2) in the presence of the cosubstrate caricotamide, an analogue of the natural cosubstrate dihydronicotinamide riboside (NRH), which acts as an electron donor. The resulting active, but short-lived metabolite, dinitrobenzamide, leads to DNA replication inhibition and the induction of apoptosis in NQO2 expressing cancer cells. Due to the lack of the natural cosubstrate NRH, NQO2 expression is normally latent but is upregulated in certain types of tumor cells.

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