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# ATM Inhibitor M 3541

National Cancer Institute

## Source

National Cancer Institute. *ATM Inhibitor M 3541*. NCI Thesaurus. Code C138076.

An orally bioavailable inhibitor of ataxia telangiectasia mutated kinase (ATM), with potential chemo-/radio-sensitizing and antineoplastic activities. Upon oral administration, M 3541 targets and binds to ATM, thereby inhibiting the kinase activity of ATM and ATM-mediated signaling. This prevents DNA damage checkpoint activation, disrupts DNA damage repair, induces tumor cell apoptosis, and leads to cell death of ATM-overexpressing tumor cells. In addition, M 3541 sensitizes tumor cells to chemo- and radiotherapy. ATM, a serine/threonine protein kinase, is upregulated in a variety of cancer cell types; it is activated in response to DNA damage and plays a key role in DNA-strand repair.