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MDM2 Antagonist RO5045337

National Cancer Institute

Source

National Cancer Institute. *MDM2 Antagonist RO5045337*. NCI Thesaurus. Code C91724.

An MDM2 (human homolog of double minutes-2; HDM2) antagonist with potential antineoplastic activity. RO5045337 binds to MDM2, thereby preventing the binding of the MDM2 protein to the transcriptional activation domain of the tumor suppressor protein p53. By preventing this MDM2-p53 interaction, the proteasome-mediated enzymatic degradation of p53 is inhibited and the transcriptional activity of p53 is restored, which may result in the restoration of p53 signaling and thus the p53-mediated induction of tumor cell apoptosis. MDM2, a zinc finger protein, is a negative regulator of the p53 pathway; often overexpressed in cancer cells, it has been implicated in cancer cell proliferation and survival.