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# MDM2 Antagonist RO6839921

National Cancer Institute

## Source

National Cancer Institute. *MDM2 Antagonist RO6839921*. NCI Thesaurus. Code C114980.

An MDM2 (human homolog of murine double minute-2; HDM2) antagonist with potential antineoplastic activity. Upon intravenous administration, RO6839921 binds to MDM2 and prevents the binding of the MDM2 protein to the transcriptional activation domain of the tumor suppressor protein p53. By preventing MDM2-p53 interaction, the proteasome-mediated enzymatic degradation of p53 is inhibited and the transcriptional activity of p53 is restored. This may result in the restoration of p53 signaling, followed by p53-mediated induction of tumor cell apoptosis. MDM2, a zinc finger protein, is a negative regulator of the p53 pathway and is often overexpressed in cancer cells; p53 inhibition has been implicated in cancer cell proliferation and survival.