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# PARP Inhibitor E7016

National Cancer Institute

## Source

National Cancer Institute. *PARP Inhibitor E7016*. NCI Thesaurus. Code C91387.

An inhibitor of the nuclear enzyme poly(ADP-ribose) polymerase (PARP) with potential chemo- and/or radiosensitizing activity. PARP inhibitor E7016 selectively binds to PARP and prevents PARP mediated DNA repair of single strand DNA breaks via the base-excision repair pathway. This enhances the accumulation of DNA strand breaks and promotes genomic instability and eventually leads to apoptosis. In addition, this agent may enhance the cytotoxicity of DNA-damaging agents and reverse tumor cell resistance to chemotherapy and radiation therapy. PARP catalyzes post-translational ADP-ribosylation of nuclear proteins that signal and recruit other proteins to repair damaged DNA and is activated by single-strand DNA breaks.