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Pamiparib

National Cancer Institute

Source

National Cancer Institute. *Pamiparib*. NCI Thesaurus. Code C120553.

An orally bioavailable inhibitor of the nuclear enzyme poly(ADP-ribose) polymerase (PARP), with potential antineoplastic activity. Upon administration, pamiparib selectively binds to PARP and prevents PARP-mediated repair of single-strand DNA breaks via the base-excision repair (BER) pathway. This enhances the accumulation of DNA strand breaks, promotes genomic instability, and eventually leads to apoptosis. PARP is activated by single-strand DNA breaks and, subsequently, catalyzes post-translational ADP-ribosylation of nuclear proteins which then transduce signals to recruit other proteins to repair damaged DNA. Pamiparib may both potentiate the cytotoxicity of DNA-damaging agents and reverse tumor cell chemo- and radioresistance.