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Potent In Vivo Antiviral Activity of the Herpes Simplex Virus Primase-Helicase Inhibitor BAY 57-1293

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Abstract

BAY 57-1293 belongs to a new class of antiviral compounds and inhibits replication of herpes simplex virus (HSV) type 1 and type 2 in the nanomolar range in vitro by abrogating the enzymatic activity of the viral primase-helicase complex. In various rodent models of HSV infection the antiviral activity of BAY 57-1293 in vivo was found to be superior compared to all compounds currently used to treat HSV infections. The compound shows profound antiviral activity in murine and rat lethal challenge models of disseminated herpes, in a murine zosteriform spread model of cutaneous disease, and in a murine ocular herpes model. It is active in parenteral, oral, and topical formulations. BAY 57-1293 continued to demonstrate efficacy when the onset of treatment was initiated after symptoms of herpetic disease were already apparent.

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