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Bendamustine-containing Nanoparticle-based Formulation RXDX-107

National Cancer Institute

Source

National Cancer Institute. *Bendamustine-containing Nanoparticle-based Formulation RXDX-107*. NCI Thesaurus. Code C124053.

A nanoparticle-based formulation containing the alkyl ester of bendamustine, a bifunctional mechlorethamine derivative, encapsulated in human serum albumin (HSA), with potential alkylating and antineoplastic activities. Upon administration of the alkyl ester bendamustine-containing nanoparticle formulation RXDX-107, the nanoparticle formulation permits high concentrations of the alkyl ester of bendamustine be localized at the tumor site. The modified bendamustine alkylates and crosslinks macromolecules, resulting in DNA, RNA and protein synthesis inhibition, and, subsequently, apoptosis.