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Opebacan

National Cancer Institute

Source

National Cancer Institute. *Opebacan*. NCI Thesaurus. Code C114296.

An injectable formulation composed of opebacan, a 21 kDa recombinant fragment of human bactericidal/permeability-increasing protein (BPI), with potential anti-infective activity. Upon intravenous administration, opebacan is able to mimic BPI and binds to and neutralizes lipopolysaccharides (LPS or endotoxins), which are components of the cell wall of gram-negative bacteria that induce a potent innate immune response. This may prevent an endotoxin-mediated inflammatory response and may prevent graft-versus-host-disease (GvHD) after myeloablative allogeneic hematopoietic stem cell transplantation (aHSCT). BPI, a host-defense protein against microbial infection, is naturally produced by neutrophils. Chemo- and radio-therapy induce neutropenia and depletion of endogenous BPI. These therapies also cause intestinal damage and release of bacterial endotoxins into the bloodstream, which initiate a systemic inflammatory response, activate donor T-lymphocytes and possibly cause GvHD following aHSCT.