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Vepoloxamer

National Cancer Institute

Source

National Cancer Institute. *Vepoloxamer*. NCI Thesaurus. Code C122832.

A purified form of the non-ionic polyoxypropylene-based copolymer poloxamer 188 comprised of a hydrophobic core with hydrophilic side chains, with cytoprotective, hemorrheologic, anti-inflammatory, anti-thrombotic and fibrinolytic activities. Although the exact mechanism of action is not fully elucidated, upon intravenous administration, the hydrophobic polyoxypropylene core of vepoloxamer reversibly adheres to hydrophobic sites of damaged cell membranes, thereby fully covering the damaged sites. This prevents the attachment of other hydrophobic molecules, cell leakage of contents, such as ions, and restores the integrity of the damaged cell. Binding of vepoloxamer to damaged cells in the blood vessel walls, prevents cell aggregation and improves blood flow. By occupying damaged sites, this agent also prevents inflammatory processes, inhibits thrombosis, and induces fibrinolysis. As the hydrophobic region of the lipid cell membrane is not exposed in healthy cells, vepoloxamer does not adhere to healthy cells.