

[Open Peer Review on Qeios](#)

Extended-release Granisetron Polymer Formulation

National Cancer Institute

Source

National Cancer Institute. *Extended-release Granisetron Polymer Formulation*. NCI Thesaurus. Code C136429.

An extended-release (ER), polymer-based injectable formulation containing the indazole derivative granisetron, a selective serotonin (5-hydroxytryptamine; 5-HT) receptor type 3 (5-HT₃) antagonist, with anti-emetic activity. Upon subcutaneous administration, granisetron is released from the polymer in a sustained manner, which is based upon the controlled hydrolysis of the polymers, and selectively binds to and inhibits the activity of the 5-HT₃ receptors located peripherally on vagal nerve terminals and centrally in the chemoreceptor trigger zone (CTZ) of the area postrema. By preventing stimulation of 5-HT₃ receptors, granisetron is able to suppress chemotherapy-induced nausea and vomiting (CINV). Compared to the injection of granisetron alone, injection of the polymer-based formulation allows for therapeutic levels of granisetron over an extended period of time.