

عنوان مقاله:

Imatinib loaded pegylated Poly Propylene Imine dendrimer for delivery to leukemic cells; fabrication of formulation and evaluation

محل انتشار:

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خلاصه مقاله:

PEGylated polypropyleneimine (PPI) dendritic scaffold was used for the delivery of an anti-leukemic drug, Imatinib. The current study evolves and emerges the use PEGylated PPI dendritic scaffold for the delivery of this drug. In this Imatinib was synthesized and loaded with PEGylated PPI dendritic scaffold. Parameters such as FT-IR, NMR, SEM, drug release, DSC and hemolytotoxicity are required. Other parameters such as drug entrapment of both PEGylated and non-PEGylated systems were comparatively determined. Drug-loading capacity was found to be increased with the PEGylation and reduces the haemolytic toxicity as well as drug release rate. By this, prolonged delivery of Imatinib was found to be suitable with this system. By delivering the drug for a prolonged period of time at a controlled rate, we expect that this approach will improve the management of drug therapy in leukemic patients.

کلمات کلیدی:

Antileukemic activity, Dendritic scaffold, Imatinib, PEGylated dendrimers, Prolonged release

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