Open Peer Review on Qeios

Donor-derived CD34+ Hematopoietic Stem and Progenitor Cells Plus CD3+ Tcells MDR-101

National Cancer Institute

Source

National Cancer Institute. <u>Donor-derived CD34+ Hematopoietic Stem and Progenitor</u> <u>Cells Plus CD3+ T-cells MDR-101</u>. NCI Thesaurus. Code C151968.

A preparation of allogeneic, organ donor-derived CD34-positive hematopoietic stem and progenitor cells (HPCs) and CD3-positive T-cells that can be used after organ transplantation to potentially prevent organ rejection. Upon infusion of the organ donorderived CD34+ HPCs plus CD3+ T-cells MDR-101 after organ transplantation, these cells mix and co-exist with the recipient's blood and immune cells, thereby inducing hematologic mixed chimerism and enabling the recipient's immune system to become immune tolerant to the donor cells. This increases acceptance of the transplanted organ, decreases the risk of organ transplant rejection, increases organ survival and may decrease the need for additional immunosuppressive agents. The cells in MDR-101 are ex vivo processed in a specific and unique way which has yet to be fully elucidated. Cell doses are dependent on the degree of human leukocyte antigen (HLA)-match/HLAmismatch between the recipient and donor.