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Allogeneic TCR alpha/beta-positive T-lymphocyte-depleted Peripheral Blood Stem Cells

National Cancer Institute

Source

National Cancer Institute. *Allogeneic TCR alpha/beta-positive T-lymphocyte-depleted Peripheral Blood Stem Cells*. NCI Thesaurus. Code C148149.

A preparation of allogeneic T-cell receptor (TCR) alpha/beta-positive T cell-depleted peripheral blood stem cells (PBSCs), that can potentially be used for hematopoietic stem cell transplantation (HSCT). Allogeneic PBMCs are processed, using the proprietary CliniMACS device, to remove TCRalpha/beta T-cells, while retaining other cells, such as donor-derived natural killer (NK) cells and gamma/delta T-cells. As TCR alpha/beta-positive T-cells appear to be related to the development of graft versus host disease (GvHD), depletion of these cells may lower the risk of the recipient developing GvHD. Upon infusion of the TCR alpha/beta-positive T-cell-depleted PBSCs for allogeneic stem cell transplantation (allo SCT), the alpha/beta-positive T-cell depletion as well as the presence of allogeneic NK cells, and other cells, may facilitate engraftment, exert graft-versus-leukemia effects, enhance post-transplant immune recovery, and reduce the risk of infections and GvHD.