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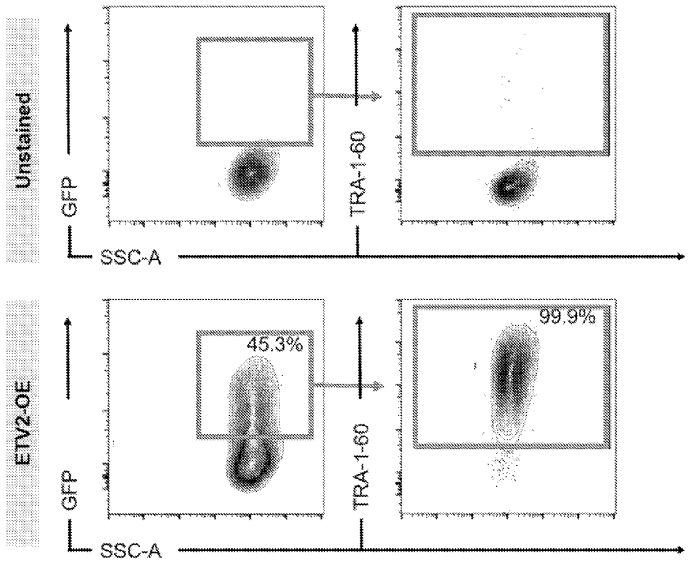
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(54) Title: PLURIPOTENT STEM CELL-DERIVED HEMATOPOIETIC LINEAGES

FIG. 1



(57) Abstract: The present disclosure, in various aspects and embodiments, provides methods for generating hematopoietic lineage cells for hematopoietic cell therapy. The various hematopoietic lineages include T lymphocytes including progenitor T cells, natural killer cells, B lymphocytes, neutrophils, monocytes and/or macrophages, red cells, megakaryocytes, and platelets. In various embodiments, the invention provides for efficient ex vivo processes for developing hematopoietic lineages, including but not limited to progenitor T cells and T cell lineages, from human induced pluripotent stem cells (iPSCs). Cells generated according to the disclosure in various embodiments are functional and/or more closely resemble the corresponding lineage isolated from peripheral blood or lymphoid organs. The present invention in some aspects provides isolated cells and cell compositions produced by the methods disclosed herein, as well as methods for adoptive cell therapy.

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