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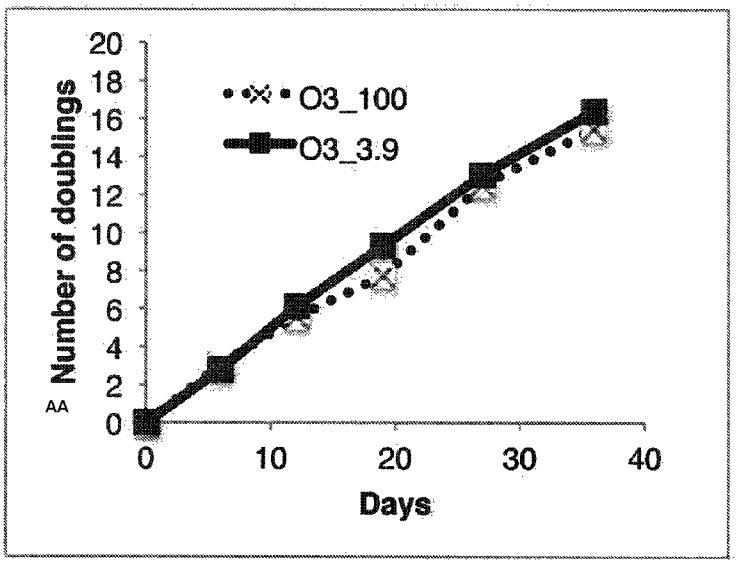


FIG. 22

(57) Abstract: The present disclosure related to isolated laminin-521, methods for making recombinant laminin-521, host cells that express recombinant laminin-521, and compositions containing laminin-521. Laminin-521 can maintain stem cells in vitro pluripotency, enable self-renewal, and enable single cell survival of human embryonic stem cells. When pluripotent human embryonic stem cells are cultured on plates coated with recombinant laminin-521 (laminin-11), in the absence of differentiation inhibitors or feeder cells, the embryonic stem cells proliferate and maintain their pluripotency. It has also been discovered that human recombinant laminin-521 (laminin-11) provides single cell survival of stem cells after complete dissociation into a single cell suspension. Useful cell culture mediums containing at most 3.9 ng/ml of beta fibroblast growth factor (bFGF) are also described herein.

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