RNA PREPARATIONS COMPRISING PURIFIED MODIFIED RNA FOR REPROGRAMMING CELLS

ABSTRACT

The present invention provides compositions and methods for reprogramming somatic cells using purified RNA preparations comprising single-strand mRNA encoding an iPS cell induction factor. The purified RNA preparations are preferably substantially free of RNA contaminant molecules that: i) would activate an immune response in the somatic cells, ii) would decrease expression of the single-stranded mRNA in the somatic cells, and/or iii) active RNA sensors in the somatic cells. In certain embodiments, the purified RNA preparations are substantially free of partial mRNAs, double-stranded RNAs, un-capped RNA molecules, and/or single-stranded run-on mRNAs.

(FIG. 1)