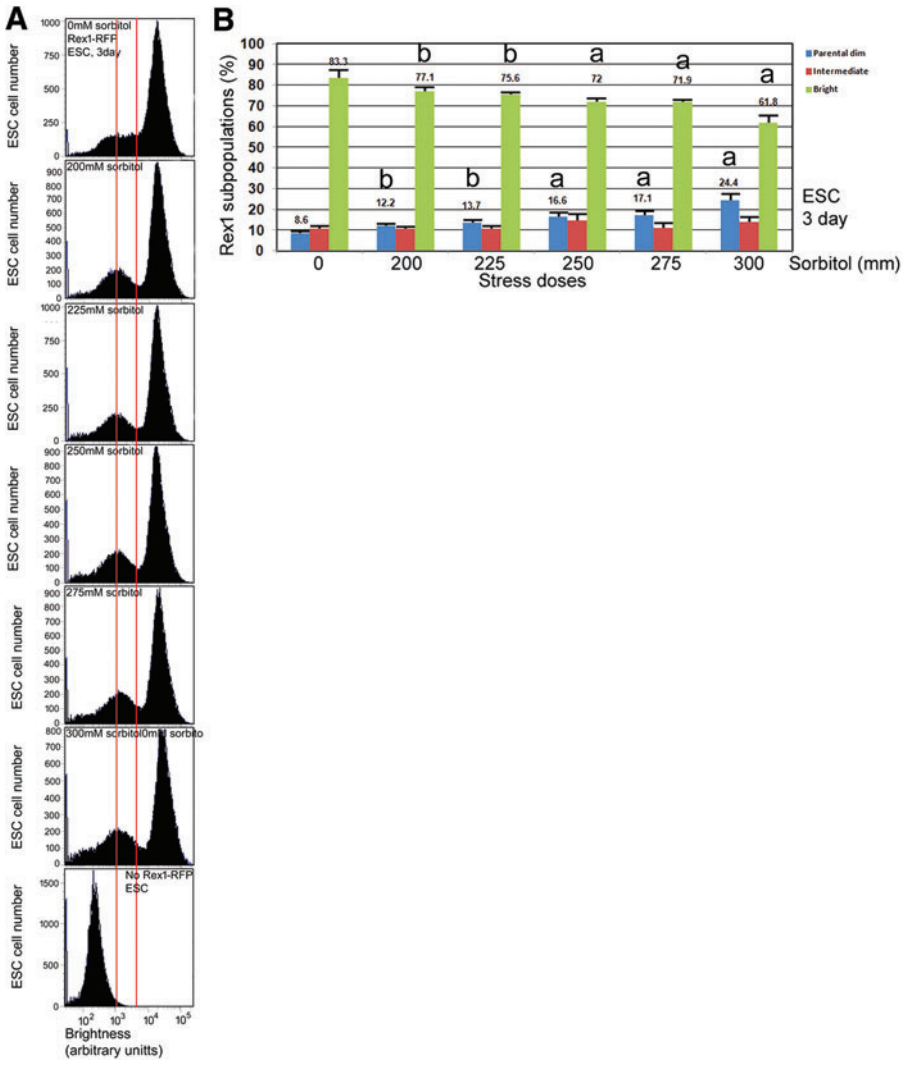

SUPPLEMENTARY FIG. S2. Viable Rex1 promoter reporter responds with stress treatment in a dose-dependent manner in flow cytometry assay. mESCs expressing Rex1 promoter reporter were cultured in 12-well plates till 30% confluence. Cells were then treated with 200–300 mM of sorbitol in 25 mM increments for 3 days. After trypsinization, the cell suspensions were subjected to flow cytometry assay. An arbitrary threshold was drawn at 5×10^3 on the X-axis and another near the low point between the bright peak and the dimmer peak to its *left* **(A)**. This created three areas of nontransgenic parental ESCs dim at the level of ESCs that do not express Rex1-RFP (see *bottom* graph of the four). Intermediate and bright groups were also defined by the two *vertical red lines*. Area sizes of the two peaks were quantified using Image J. The histogram bars **(B)** are derived by three independent experiments, one of which is shown in **(A)**, error bars showing SEM, one-way ANOVA was performed followed by Dunnett's post hoc test using 0 mM as reference for parental dim, intermediate dim, and bright separately. **(a)** Indicates significant decrease in bright subpopulations and increase in parental dim subpopulations at 250–300 mM sorbitol ($P < 0.05$) and **(b)** indicates no significance at 200–225 mM sorbitol for changes in Rex1-RFP bright or parental dim subpopulations.