



**SUPPLEMENTARY FIG. S3.** The antiapoptosis and promoting skin regeneration effects of PRCR preconditioning on BM-MSCs. There were pros and cons of PRCR preconditioning on MSCs and the key players responsible for apoptotic cell death, including withdrawal of trophic factors, inflammation, and stress condition etc. VEGF and PDGF interaction with PDGFR- $\alpha$  on the cell surface to trigger autocrine/paracrine factors and initiate PI3K/AKT1/NF- $\kappa$ B pathway was responsible for cell survival under stress condition in vitro and enhancement of cell antiapoptosis and cell regeneration function after transplanted in acutely injured skin. PDGFR, platelet-derived growth factor receptor.