Supporting information

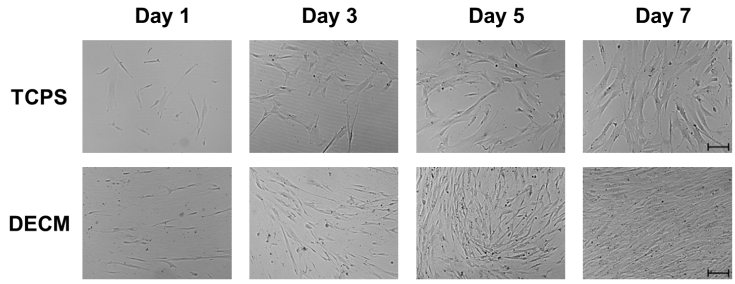

Figure S1. Cell morphology of UC-MSCs cultured on TCPS and DECM substrates. Representative images of phase-contrast microscopy revealed the cell density when UC-MSCs were cultured on TCPS and DECM substrates. Scale bar = 100 μm.

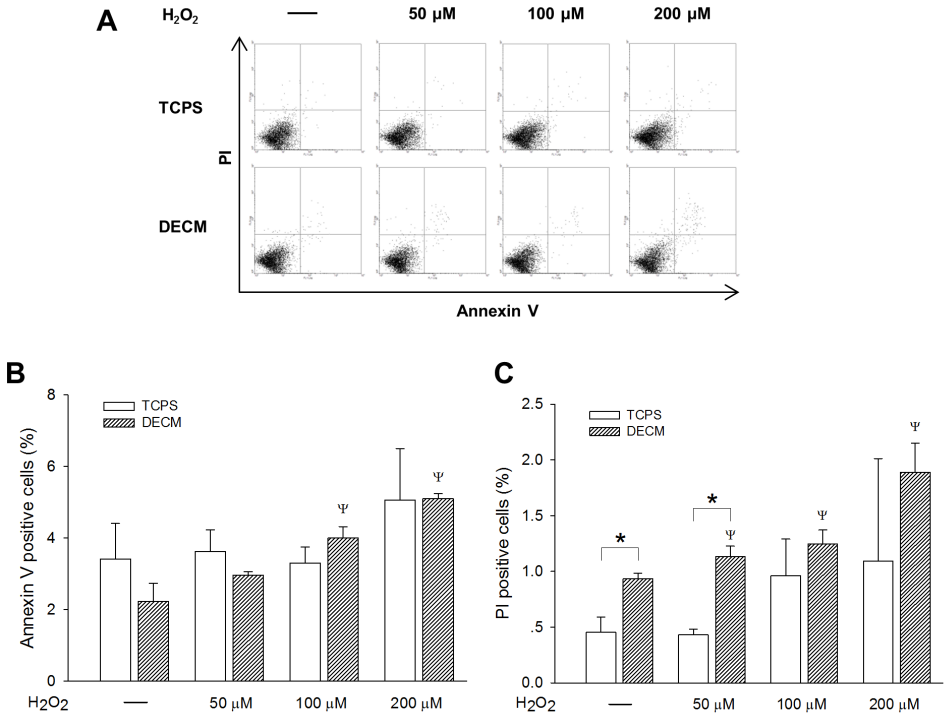

Figure S2. Flow cytometry was used to analyze the apoptotic cells induced by H_2O_2 in triplicate wells. The percentage of Annexin V-positive staining represented the early apoptotic cells. The percentage of PI-positive staining represented the late apoptotic cells. Values are the mean ± S.E. of three independent experiments (n = 3). Statistically significant differences are indicated by * ($p < 0.05$); Φ ($p < 0.05$) versus untreated cells on TCPS; Ψ ($p < 0.05$) versus untreated cells on ECM.

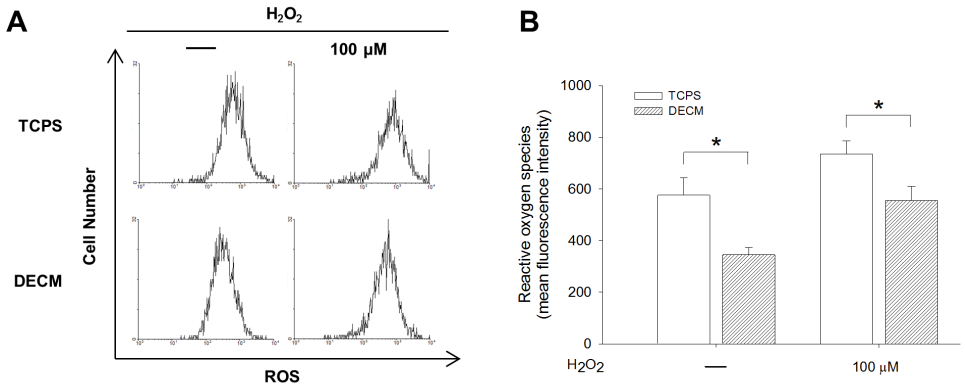

Figure S3. Intracellular ROS of UC-MSCs was labeled, in quadruplicate, with 2′,7′-dichlorofluorescein diacetate (DCF-DA) and the fluorescence intensity was measured by flow cytometry. Values are the mean ± S.E. of four independent experiments ($n = 4$). Statistically significant differences are indicated by * ($p < 0.05$); Φ ($p < 0.05$) versus untreated cells on TCPS; Ψ ($p < 0.05$) versus untreated cells on ECM.

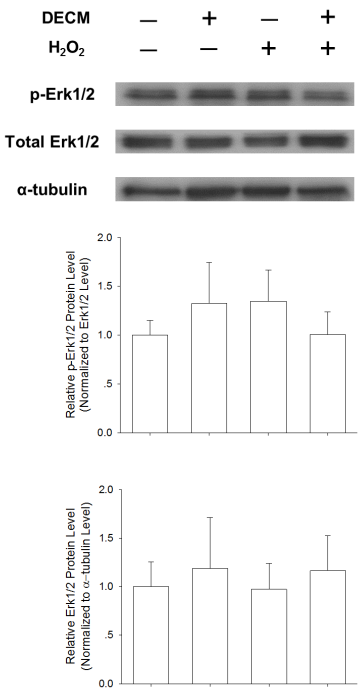

Figure S4. The Erk1/2 signaling pathway was evaluated. The levels of p-Erk1/2 were normalized to total Erk1/2 protein. The levels of Erk1/2 were normalized to α-tubulin protein. Values are the mean ± S.E. of three independent experiments (n = 3). Statistically significant differences are indicated by * ($p < 0.05$).