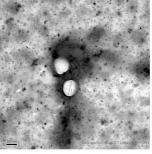




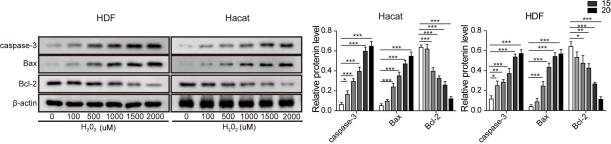
**Supplementary Figure S1** Spindle ADSCs were observed through the microscope. ×40 magnification.



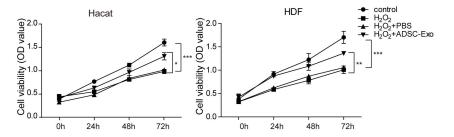
ADSC-Exo

**Supplementary Figure S2**Transmition electron microscopy photomicrographs of exosomes. Scale bar, 100 nm.

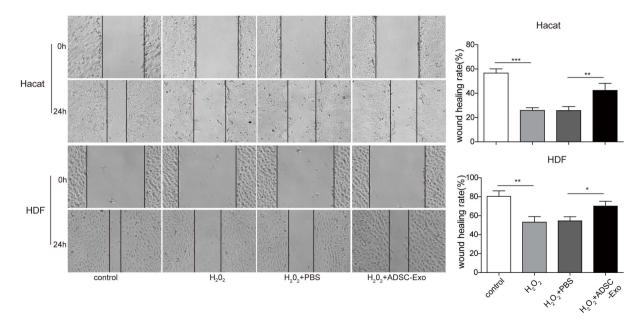




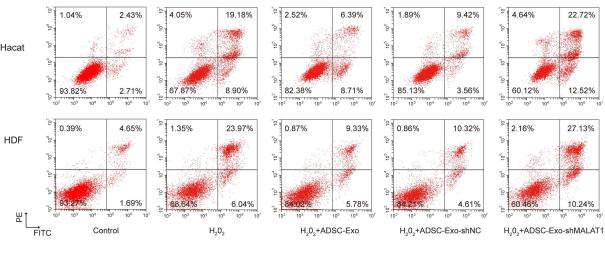
**Supplementary Figure S3** The Caspase3, Bax and Bcl-2 expression were detected by western blot assay.

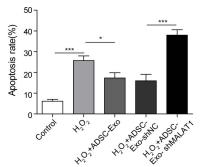


**Supplementary Figure S4** Cell proliferation of HaCaT and HDF cells was evaluated by CCK-8 assay.



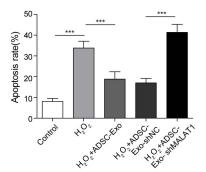
**Supplementary Figure S5** The capacity of cell migration in HaCaT and HDF cells was analyzed by the scratch wound healing assay.



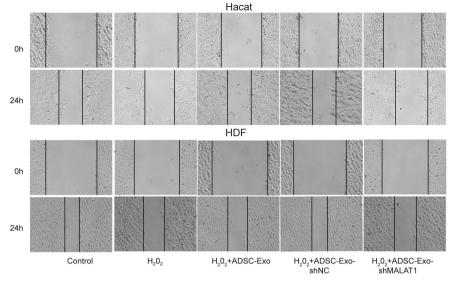


Hacat

HDF

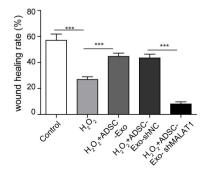


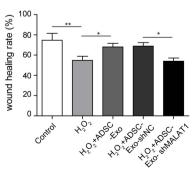
**Supplementary Figure S6** Apoptosis of HaCaT and HDF cells treated with  $H_2O_2$ ,  $H_2O_2$ +ADSC-Exo,  $H_2O_2$ +ADSC-Exo-shNC or  $H_2O_2$ +ADSC-Exo-shMALAT1 were monitored by flow cytometry assay.



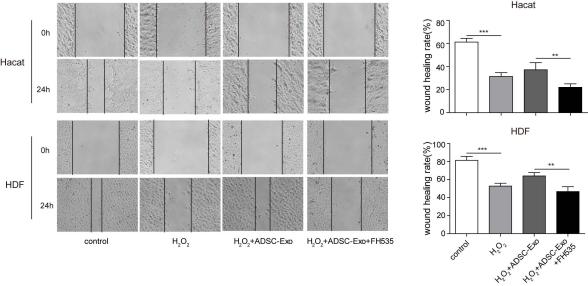








**Supplementary Figure S7** Migration of HaCaT and HDF cells treated with  $H_2O_2$ ,  $H_2O_2$ +ADSC-Exo,  $H_2O_2$ +ADSC-Exo-shNC or  $H_2O_2$ +ADSC-Exo-shMALAT1 were analyzed by the scratch wound healing assay.



Supplementary Figure S8 Migration of HaCaT and HDF cells treated with FH535

was performed using the scratch wound healing assay.