

Supplementary Figure

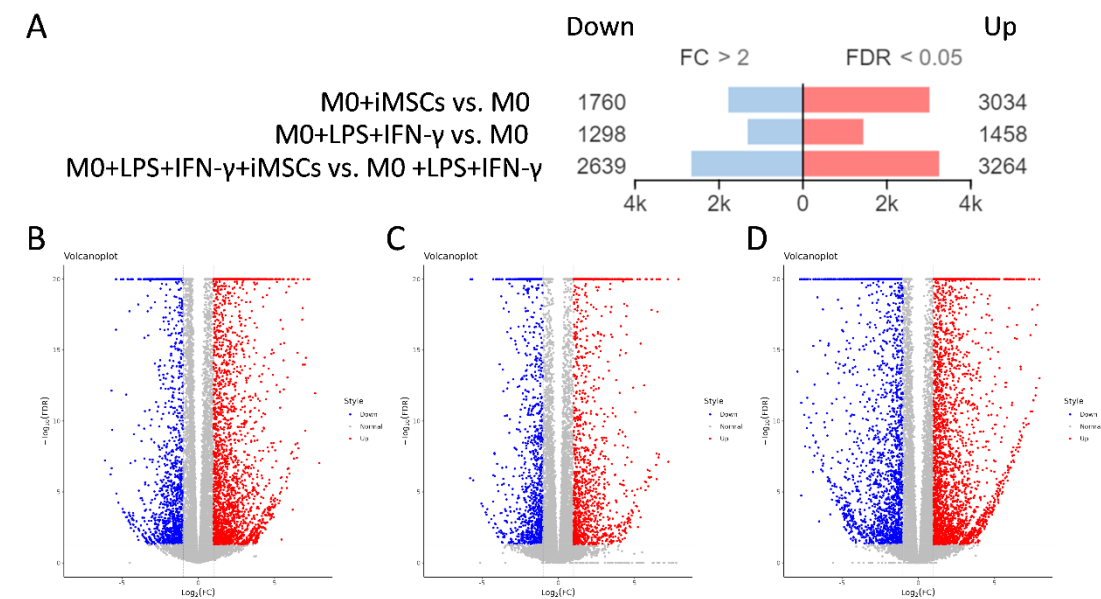


Fig. 1 The changes in macrophage gene expression under different conditions, highlighting the distribution and quantity of differentially expressed genes through bar graphs and volcano plots. **(A)** The bar graph displays the number of upregulated (Up, blue) and downregulated (Down, red) genes across three comparative groups. **(B)** Volcano plot depicting the distribution of differentially expressed genes in the comparison of M0 + iMSCs vs. M0. **(C)** Volcano plot showing the differential gene distribution in the comparison of M0 + LPS + IFN- γ vs. M0. **(D)** Volcano plot illustrating the distribution of differentially expressed genes in the comparison of M0 + LPS + IFN- γ + iMSCs vs. M0 + LPS + IFN- γ .

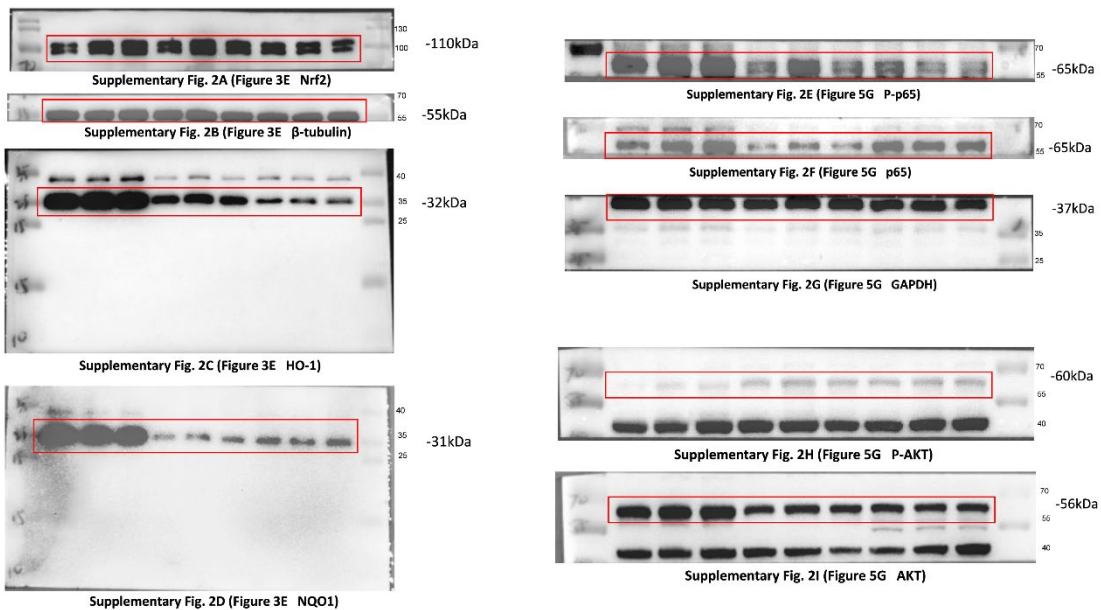


Fig. 2 Corresponding full-length blot. **(A-D)** Western blot analysis of Nrf2, p65, β -

tubulin, HO-1, and NQO1 in Figure 3E. (E-I) Western blot analysis of P-p65, p65, GAPDH, P-AKT, and AKT in Figure 5G. The red rectangles indicate the cropped immunoblot.

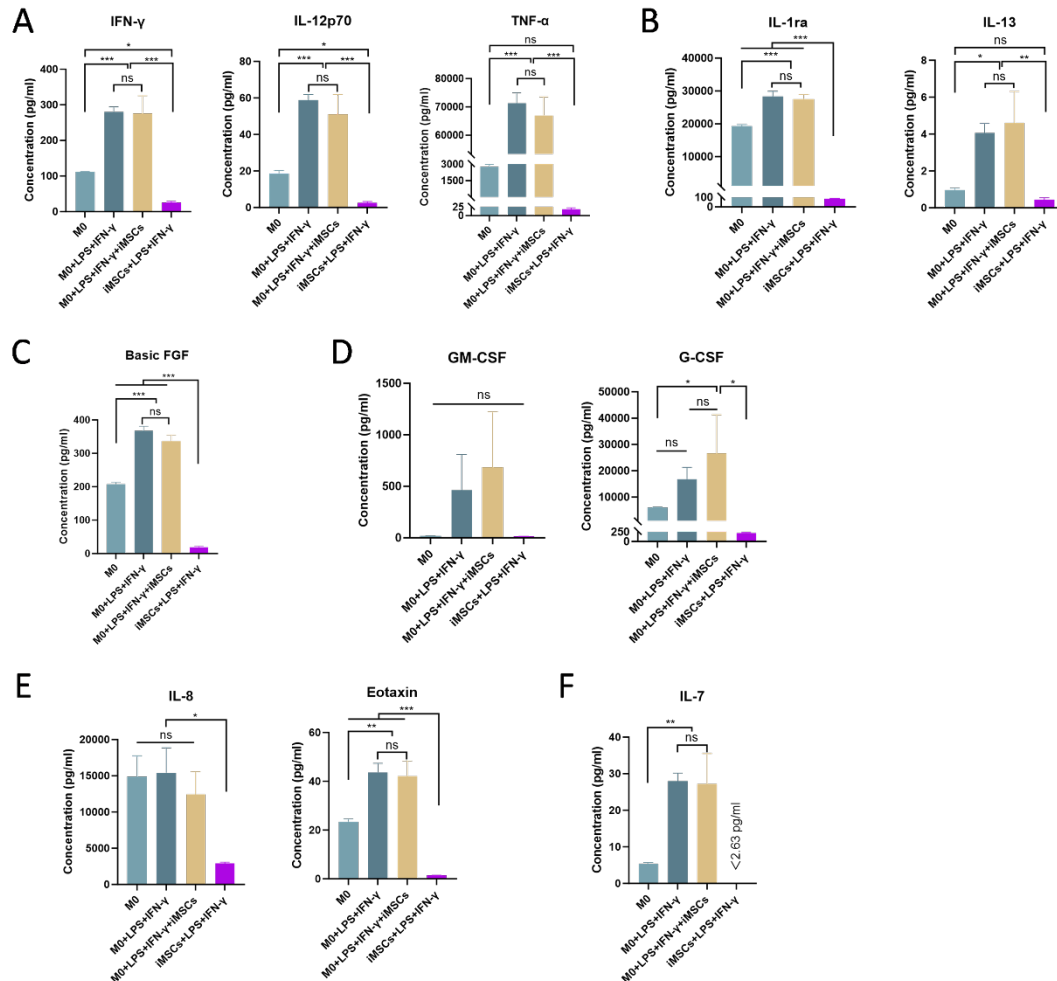


Fig. 3 The concentration changes of cytokines secreted by macrophages under different treatment conditions (M0, M0 + LPS + IFN- γ , and M0 + LPS + IFN- γ + iMSCs). (A) Pro-inflammatory cytokines (IFN- γ , IL-12p70, TNF- α). (B) Anti-inflammatory cytokines (IL-1ra, IL-13). (C) Growth factors (basic bFGF). (D) Colony-stimulating factors (G-CSF, GM-CSF). (E) Chemokines (IL-8, Eotaxin). (F) Immune-related cytokines (IL-7). Each bar chart represents the concentration of an individual cytokine (pg/ml). * $P < 0.05$, ** $P < 0.01$, *** $P < 0.001$; ns, not significant ($P > 0.05$).