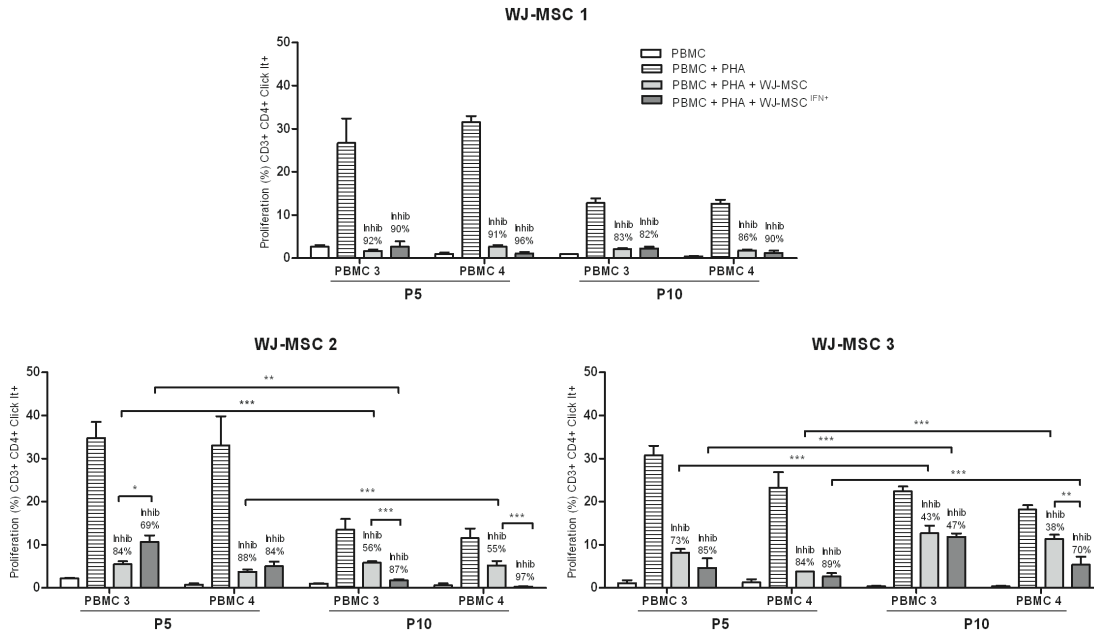
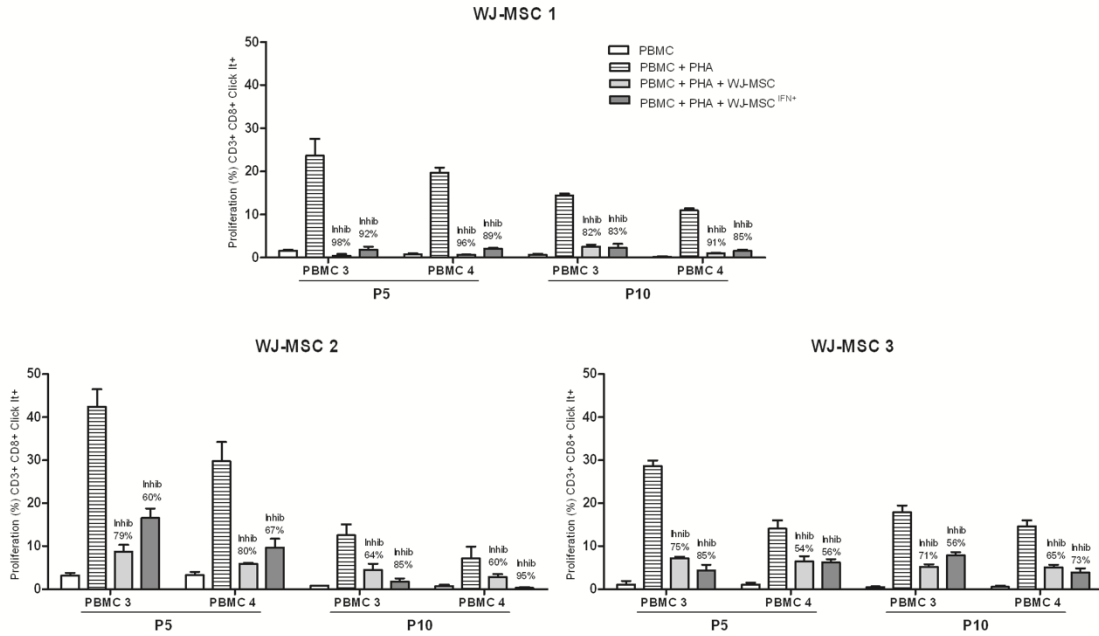


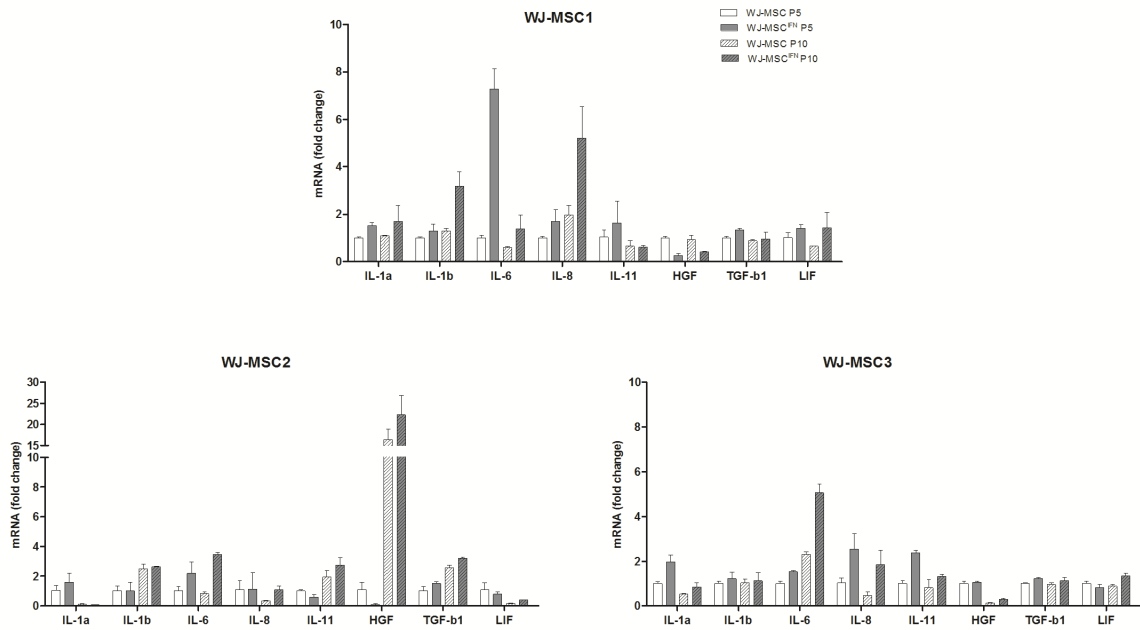
## Supplementary data



**Figure 1- WJ-MSC licensed with IFN- $\gamma$  inhibit CD3<sup>+</sup> CD4<sup>+</sup> T cell proliferation.** WJ-MSC were seeded and IFN- $\gamma$  was added for 24 hours. PBMC were stimulated with PHA for 3 days in the presence of WJ-MSC, the ratio used was 1:10 (WJ-MSC: PBMC). The WJ-MSC passages used in the experiments were P5 and P10. T cells were collected, stained with anti-CD3, anti-CD4, and anti-CD8 antibodies and proliferation was measured by flow cytometry using the Click It Kit. Percentage of inhibition (Inhib) was calculated using the percentage of proliferation of PBMC + PHA + WJ-MSC compared to the control PBMC + PHA. Experiments were performed in triplicate. Results are represented by mean  $\pm$  SD. Statistically significant differences are shown as (\*)  $p < 0.05$ , (\*\*)  $p < 0.005$  and (\*\*\*)  $p < 0.0001$  ( $n = 3$ )



**Figure 2 - WJ-MSC licensed with IFN- $\gamma$  inhibit CD3<sup>+</sup> CD8<sup>+</sup>T cell proliferation.** WJ-MSC were seeded and IFN- $\gamma$  was added for 24 hours. PBMC were stimulated with PHA for 3 days in the presence of WJ-MSC, the ratio used was 1:10 (WJ-MSC: PBMC). The WJ-MSC passages used in the experiments were P5 and P10. T cells were collected, stained with anti-CD3, anti-CD4, and anti-CD8 antibodies and proliferation was measured by flow cytometry using the Click It Kit. Percentage of inhibition (Inhib) was calculated using the percentage of proliferation of PBMC + PHA + WJ-MSC compared to the control PBMC + PHA. Experiments were performed in triplicate. Results are represented by mean  $\pm$  SD. Statistically significant differences are shown as (\*)  $p < 0.05$ , (\*\*)  $p < 0.005$  and (\*\*\*)  $p < 0.0001$  (n = 3)



**Figure 3 - WJ-MCS gene expression of immunomodulatory molecules after IFN- $\gamma$  stimulation.** Cells were seeded and IFN- $\gamma$  was added for 24 hours. The WJ-MSC passages used in the experiments were P5 and P10. Cells were lysed, total RNA extracted, and real-time PCR performed. IL-1 $\alpha$ , IL-1 $\beta$ , IL-6, IL-8, IL-11, HGF, TGF- $\beta$ 1, and LIF gene expression from WJ-MSC1, WJ-MSC2 and WJ-MSC3. Gene expression was normalized by housekeeping gene GAPDH and expressed as fold change compared to the control – passage 5 without IFN- $\gamma$  treatment. Experiments were performed in triplicate. Results are represented as mean  $\pm$  SD. (n=3)