

## **SUPPLEMENTAL MATERIALS**

### **MSCs cell fates in murine acute liver injury and chronic liver fibrosis induced by carbon tetrachloride**

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## Supplementary Material

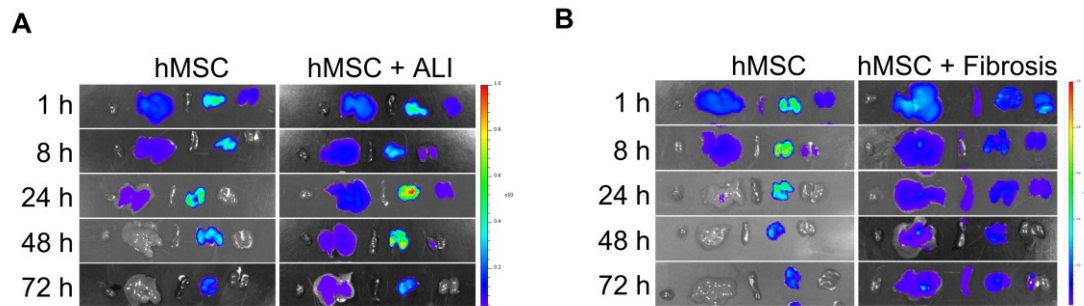
### Supplementary Table

Table S1. Primer sequences

Gene name		Sequence
hAlu	forward	CTTGCAGTGAGCCGAGATT
	reverse	GAGACGGAGTCTCGCTCTGTC
$\beta$ -actin (m, h)	forward	TCAGCAATGCCTGGGTACAT
	reverse	ATCACTATTGGCAACGAGCG
mCol1a1	forward	CAATGGCACGGCTGTGTGCG
	reverse	AGCACTCGCCCTCCCGTCTT
mCol3a1	forward	GAGGAATGGGTGGCTATCCG
	reverse	TTGCGTCCATCAAAGCCTCT
mTNF- $\alpha$	forward	CTGTAGCCCACGTCGTAGC
	reverse	TTGAGATCCATGCCGTTG
mIL-1 $\beta$	forward	ATGCCACCTTTTGACAGTGATG
	reverse	AGCTTCTCCACAGCCACAAT
mGAPDH	forward	AGGTCGGTGTGAACGGATTTG
	reverse	GGGGTCGTTGATGGCAACA

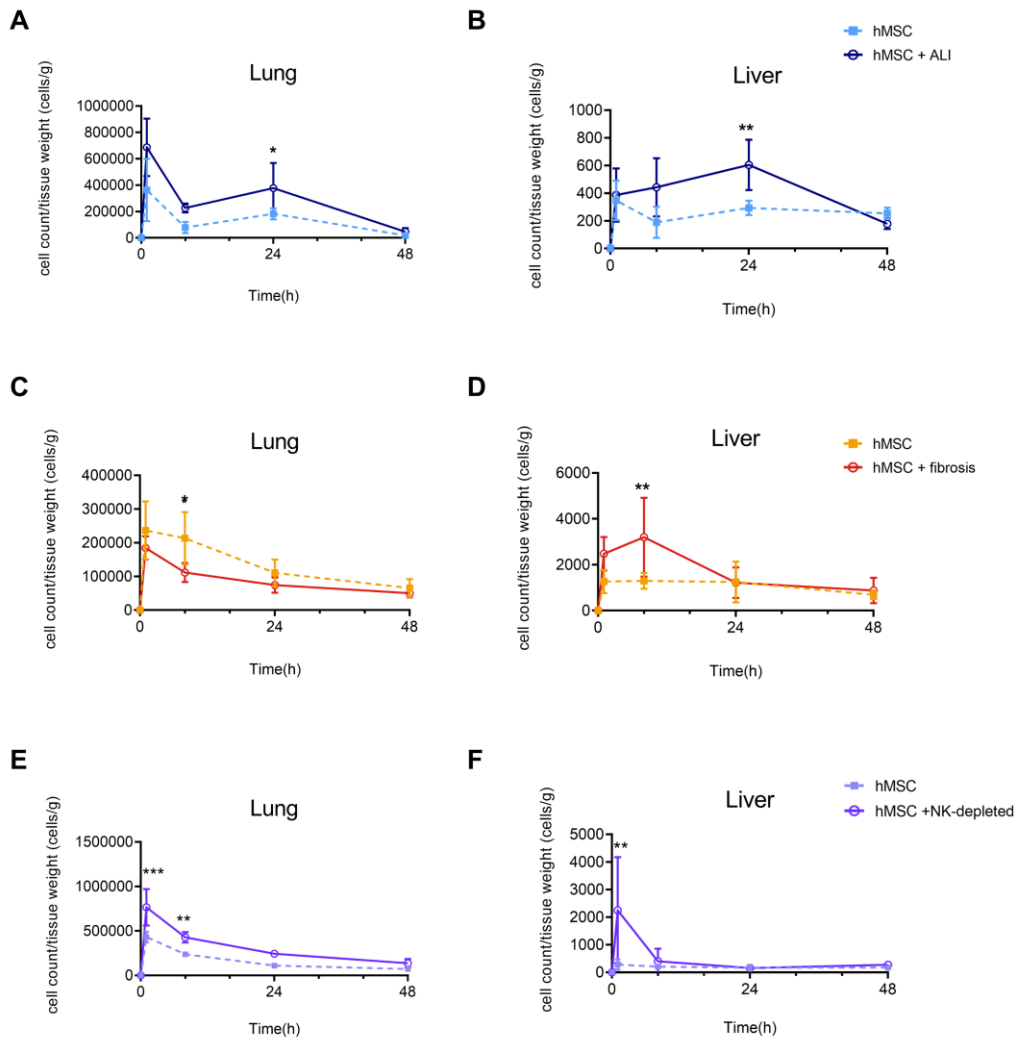
## Supplementary Figure

**Figure S1**



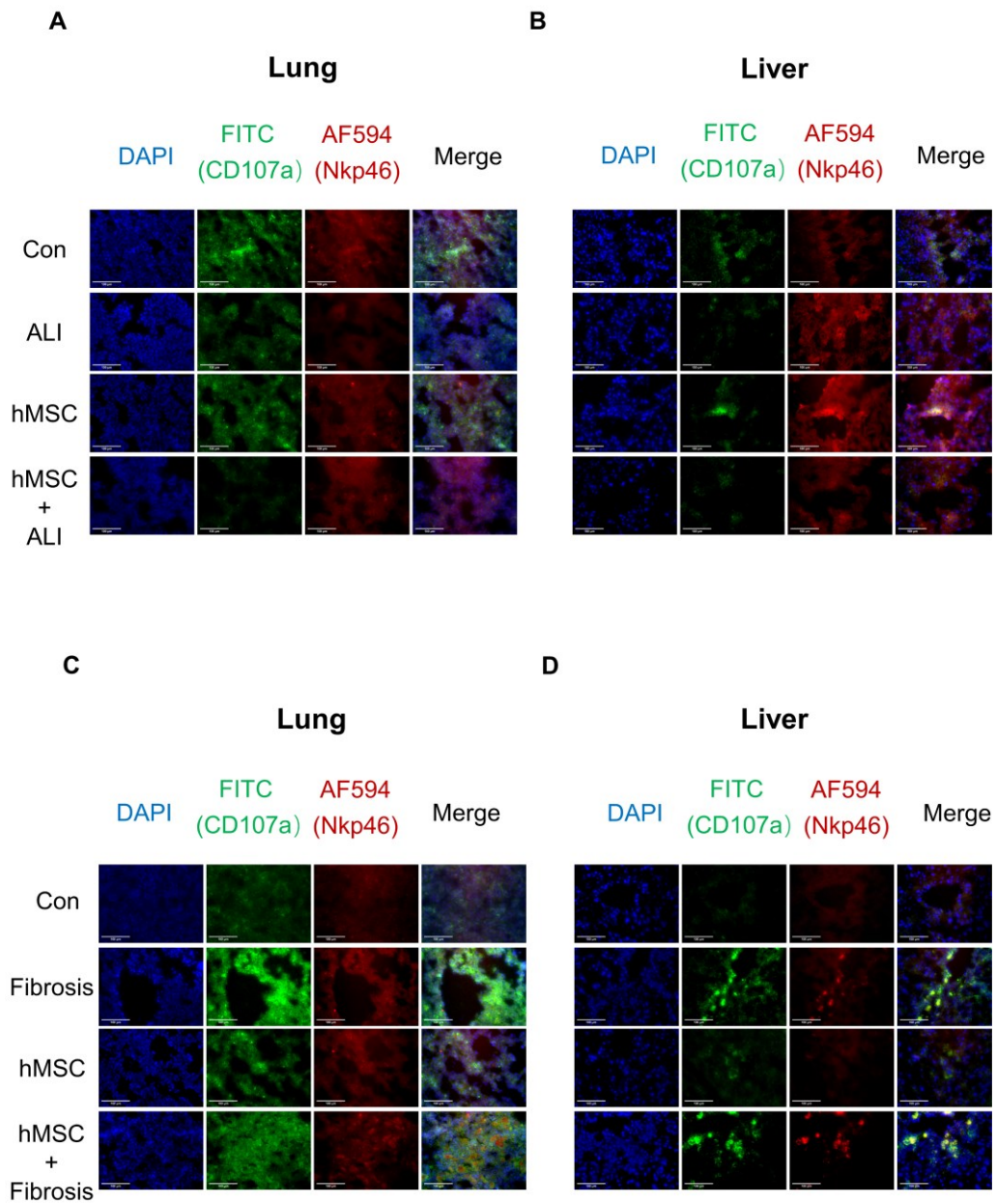
**Supplemental Figure 1: Representative fluorescent image of cy5-labeled hMSC in organs.** (A) Representative fluorescent images in organs (heart, liver, spleen, lung, kidney) in ALI. (B) Representative fluorescent images in CLF.

**Figure S2**



**Supplemental Figure 2:** The concentration-time curves of hMSCs in lung and liver by qPCR. (A-B) The hMSCs concentration - time curves in lung and liver in acute liver injury. Data were showed as the mean  $\pm$  SD,  $n = 5$  (\* $P < 0.05$ , \*\* $P < 0.01$ , hMSCs + ALI vs. hMSCs). (C-D) The hMSCs concentration - time curves in lung and liver in advanced fibrosis. Data were showed as the mean  $\pm$  SD,  $n = 5$  (\* $P < 0.05$ , \*\* $P < 0.01$ , hMSCs + fibrosis vs. hMSCs). (E-F) The hMSCs concentration - time curves in lung and liver in NK-depleted mice. Data were showed as the mean  $\pm$  SD,  $n = 4$  (\*\* $P < 0.01$ , \*\*\* $P < 0.001$ , hMSCs + NK-depleted vs. hMSCs).

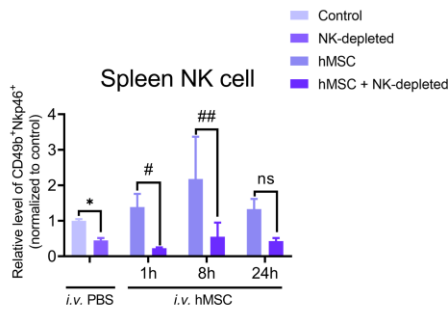
**Figure S3**



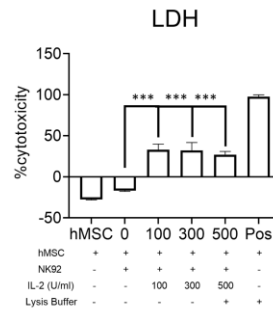
**Supplemental Figure 3:** Immunofluorescence staining of NK cells in the lung and liver. Representative immunofluorescence staining of CD107a (Green) and Nkp46 (Red) in the lung (A) and liver (B) in the ALI mice. Representative immunofluorescence staining of NK cells in the lung (C) and liver (D) in the CLF mice. Scale bar:100  $\mu$ m.

**Figure S4**

**A**



**B**



**Supplemental Figure 4: NK cells mediate the lysis of MSCs.** (A) Frequency of Nkp46+CD49b cells in spleen were quantified after the depletion of splenic NK cells by anti-Asialo GM1 antibody. Data were represented as the mean  $\pm$  SD,  $n = 4$  ( $*P < 0.05$ , vs Con;  $\#P < 0.05$ ,  $\#\#P < 0.01$ , vs hMSCs; ns, not significant). (B) IL-2-activated NK cells lyse MSCs. NK92 cells incubated with 0, 100, 300, 500U/ml IL-2 supplemented medium for 3 days could lead to significant cytolytic activity (E/T ratio = 30:1). The results were showed as the mean  $\pm$  SD,  $n = 3$  ( $***P < 0.001$ , vs. the hMSCs + NK92(0 U/ml)). Pos, Positive Control group.