

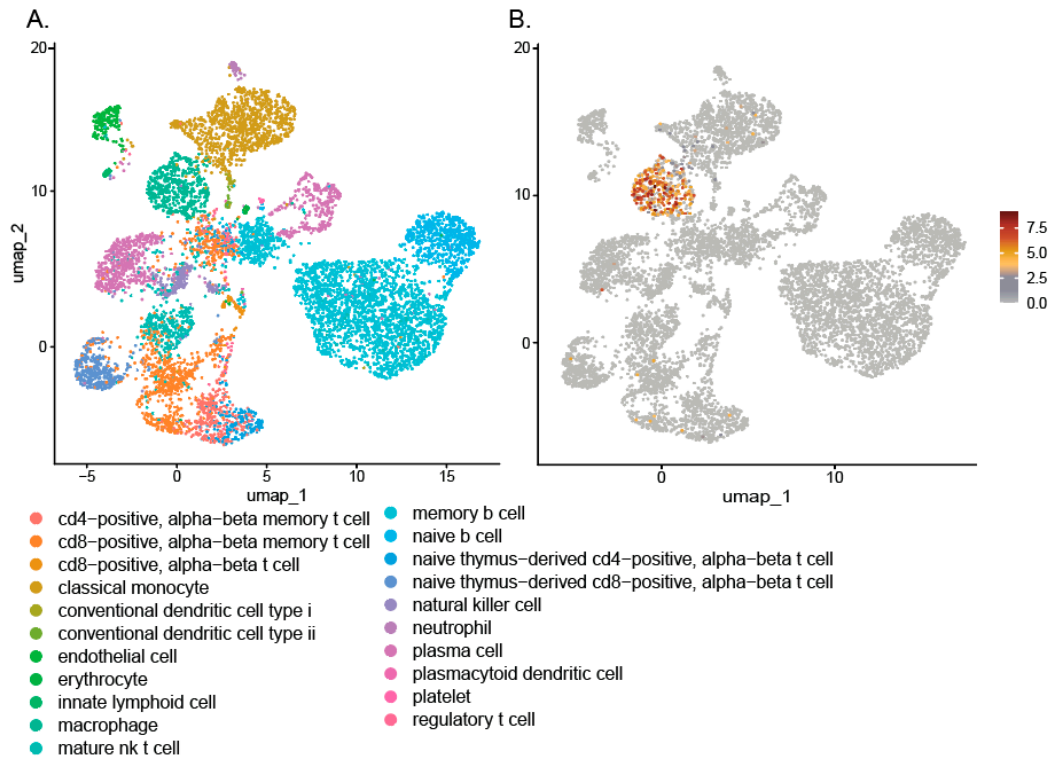
SUPPLEMENTARY MATERIAL

Supplementary Table S1. List of primers used in the study

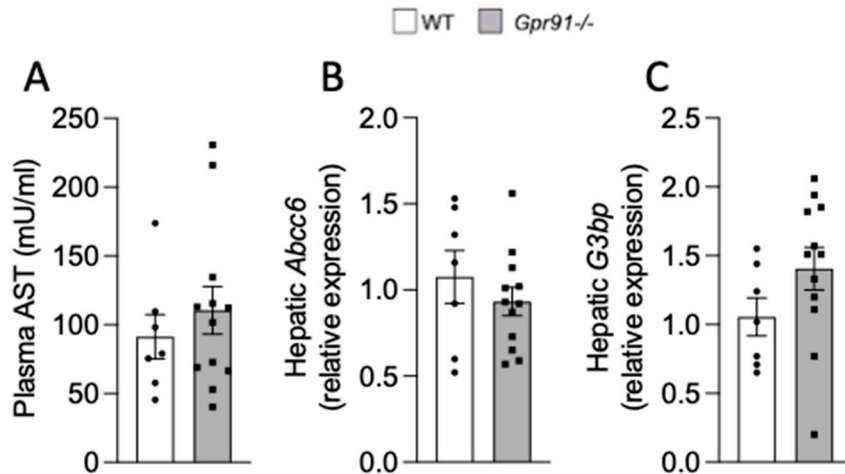
| Gene target | Forward primer (5' to 3') | Reverse primer (5' to 3') |
|--------------------|----------------------------------|----------------------------------|
| <i>Cd68</i> | ATC CCC ACC TGT CTC TCT CA | TTG CAT TTC CAC AGC AGA AG |
| <i>Cd3e</i> | CTG CTA CAC ACC AGC CTC AA | GCC TTC CTA TTC TTG CTC CA |
| <i>Chil3</i> | CCC TGC CTG TGT ACT CAC CT | GTC CAA ACT TCC ATC CTC CA |
| <i>Cxcl10</i> | AAG TGC TGC CGT CAT TTT CT | CCT ATG GCC CTA ATT CTC AC |
| <i>Nos2</i> | ACT GTG TGC CTG GAG GTT CT | TCT CTG CCT ATC CGT CTC GT |
| <i>Fizz1</i> | CCC TTC TCA TCT GCA TCT CC | AGG AGG CCC ATC TGT TCA TA |
| <i>Cd206</i> | AGT GAT GGA ACC CCA GTG AC | AGT GGT TGC TCA CAG GCT CT |
| <i>Arg1</i> | GCA GAG GTC CAG AAG AAT GG | CTG GTT GTC AGG GGA GTG TT |
| <i>Tnf</i> | CAA AGG GAG AGT GGT CAG GT | ATT GCA CCT CAG GGA AGA GT |
| <i>Abcc6</i> | TGC GGC CTA TCA CTT GCT C | CCA GCA CCA TTT TGG TTT TGA A |
| <i>G3bp</i> | TGC TGG TTC CAG GGA CTC AA | CCA CCG GCC TCT GTA GAA GA |
| <i>Tbp</i> | CAG CCT TCC ACC TTA TGC TC | TTG CTG CTG CTG TCT TTG TT |

Supplementary Table S2. Filtering and parameters used for analyses of scRNAseq datasets.

| Dataset | Minimum number of genes | Minimum number of genes | Maximum percentage of mitochondrial reads | Principal components | Resolution |
|--------------------------------|--------------------------------|--------------------------------|--|-----------------------------|-------------------|
| GSE131778 (Wirka et al.) | 500 | 3500 | 7.5 | 10 | 0.5 |
| GSE155512 (Pan et al.) | 200 | 4000 | 10 | 10 | 0.15 |
| GSE159677 (Alsaight et al.) | 300 | 4000 | 10 | 10 | 0.5 |



Supplementary Figure S1. *SUCNR1*(*GPR91*) is expressed mainly in macrophages in the human spleen. A) dimplot showing different cell types in human splenic tissue. B) Feature plot showing expression of *SUCNR1*.



Supplementary Figure S2. Liver toxicity status. Mice were injected with rAAV8-D377Y-mPcsk9 and fed a WTD for 14 weeks. A) AST levels in plasma. B) Relative mRNA expression of associated makers of liver damage *Abcc6* and *G3bp* in the liver from WT and *Gpr91*^{-/-} mice (n = 7-12). Results are shown as mean \pm SEM; graphs show pooled data from two independent experiments. Mann-Whitney U-test shows no differences between groups.