**Supplementary data**

**1. The respective primary antibody and secondary antibody for Western blot analysis**

MAT2A (SC-99170, 1:500, Santa Cruz, CA, USA), Phospho-c-Jun N-terminal kinase (p-JNK, Thr183/Tyr185, #4668, 1:2000, Cell signaling technology, Inc. MA, USA), Total-JNK (T-JNK, SC-7345, 1:1000, Santa Cruz, CA, USA), GAPDH (1:2000, Santa Cruz, CA, USA) and the horseradish peroxidase-conjugated secondary antibody (1:4000, Cell signaling technology, Inc. MA, USA).

**2. The primers for real-time PCR analysis of MAT2A**

Mouse MAT2A

(forward) 5’-ATTTACCACCTACAGCCAAGT-3’

(reverse) 5’-AACCGCCATAAGTATCCAC-3’

Mouse cyclophilin

(forward) 5’-GCAGGCAAAGACACCAAT-3’

(reverse) 5’-CTCCACCTTCCGTACCAC-3’ .

**3. The respective primary antibody and secondary antibody for Double fluorescence staining**

MAT2A (SC-99170, 1:50, Santa Cruz, CA, USA), Phospho-c-Jun N-terminal kinase (p-JNK, Thr183/Tyr185, #4668, 1:2000, Cell signaling technology, Inc. MA, USA), alpha-smooth muscle actin (α-SMA, a well known marker of HSC activation) (ab7817, 1:100, Abcam, MA, USA), and the DyLight 594- or DyLight 488-conjugated secondary antibody (1:500, ImmunoReagents, Inc., Raleigh, USA).

**4. The primers for construction of MAT2A promoter reporter plasmids**

**PGL4-MAT2A(-2954)Luc**

F KpnI 5′-CGGGGTACCCCGAGCATCTTCCGTGCATTGAG-3′

R HindIII 5′-CCCAAGCTTGGGAGGGAGGATCGCTTCAGCT-3′

**PGL4-MAT2A(-2847)Luc**

F KpnI 5′-CGGGGTACCCCGACCTGTCATTGCAAACAGCAC-3′

R HindIII 5′-CCCAAGCTTGGGAGGGAGGATCGCTTCAGCT-3′

**PGL4-MAT2A(-2752)Luc**

F KpnI 5′-CGGGGTACCCCGCTGAGCTGCAGAGGAAAGGAT-3′

R HindIII 5′-CCCAAGCTTGGGAGGGAGGATCGCTTCAGCT-3′