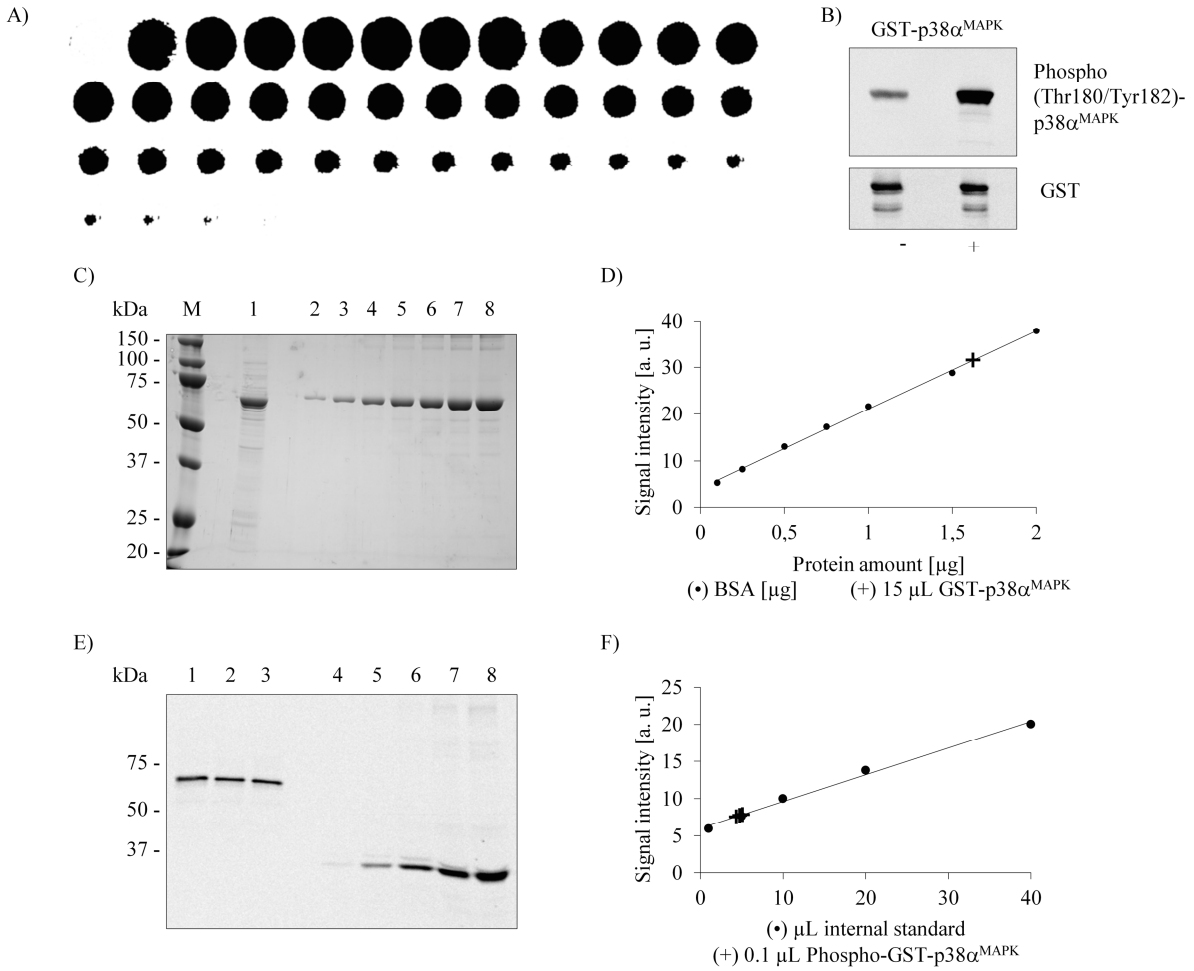


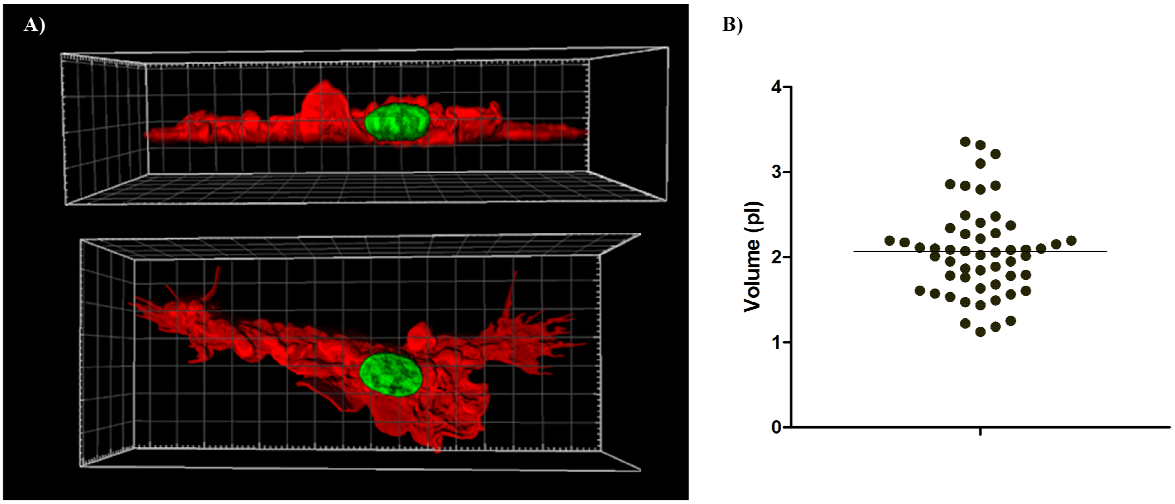
Supplementary Figure S1: Determination of hepatocyte cell volume and generation of an internal standard for quantitative immunoblotting

A) Determination of hepatocyte cell volume. Optical slices obtained from fluorescence microscopy were binarised using ImageJ Software. The amount of black pixels was calculated and multiplied by a device dependent scaling factor to receive hepatocyte cell volume. This method was validated by measurements on fluorescent microspheres of known size.

B) *In vitro* phosphorylation of recombinant p38^{MAPK}. p38^{MAPK} and MK2 (not shown) was recombinantly expressed in E. coli, purified by affinity chromatography using Glutathion S Sepharose (GE Healthcare) and *in vitro* phosphorylated as described above. Protein was then applied to SDS-PAGE, transferred to nitrocellulose membrane by western blotting and detected by specific antibodies. (-) Protein without *in vitro* phosphorylation, (+) protein after *in vitro* phosphorylation.

C and D) Determination of p38^{MAPK} protein concentration in solution. *In vitro* phosphorylated p38^{MAPK} and MK2 (not shown) was applied to SDS-PAGE, co-separated with a serial dilution of BSA. After staining with Coomassie Brilliant Blue staining intensity was calculated to determine the concentration of p38^{MAPK} and MK2 (not shown) in solution.

E and F) Calibration of the internal standard. Primary mouse hepatocytes were treated for 20 minutes with 20 ng·mL-1 of IL-1β and lysed in triton buffer. The lysate was applied to SDS-PAGE and Western Blotting as a serial dilution together with the *in vitro* phosphorylated protein. Signal intensity was calculated to determine the concentration of Phospho-p38^{MAPK}, total p38^{MAPK} (not shown), Phospho-MK2 (not shown) and total MK2 (not shown), respectively.



Supplementary Figure S3: Determination of BMDM cell volume

A) Optical slices from a representative measurement on bone marrow derived macrophages (BMDM) obtained from fluorescence microscopy were combined to a 3D illustration with the software Volocity (Improvision). B) Furthermore, optical slices from 54 independent measurements were binarised using ImageJ Software. The amount of black pixels was calculated and multiplied by a device dependent scaling factor to receive BMDM cell volume (2.07 pL, S.E.M.: 0.07).