Supplemental Figure S1. P2RX7 gene sequence variants between WKY and LEW strains. The first panel shows insertion/deletions (indel) downstream, within the coding region, untranslated regions (UTR) and upstream P2RX7. The lower panel shows single nucleotide polymorphisms (SNPs) throughout the whole gene. “0” designates homozygous reference (Brown Norway RGSC_v3.4) allele; “1” designates heterozygous and “2” designates homozygous variant genotype (different to BN). The synonymous coding SNP is highlighted in yellow.
**Supplemental Figure S2.** P2RX7 is essential for ATP-induced Nlrp3 inflammasome activation in rodent bone marrow derived macrophages. To confirm that caspase-1 dependent IL-1β and IL-18 release was regulated by P2RX7, BMDMs from P2RX7 deficient (P2RX7-/-) and wild-type (WT) mice were primed with LPS (1μg/ml, 5 hours) and incubated 30 min with ATP (5mM). Cell lysates and supernatants were subjected to Western Blotting for detection of pro- and active forms of IL-1β (A), IL-18 (B) and caspase-1 (C). (D) WKY BMDMs were subjected to Western Blotting to detect IL-1 β with (+) our without (-) pre-incubation with P2RX7 antagonist (AZ10606120, 3μM, 1h) in LPS primed (+) and ATP-stimulated cells (+). (E) P2RX7 antagonist (AZ10606120, 3μM, 24h) was also used in ex vivo cultured WKY nephritic glomeruli 4 days following the induction of NTN. These results are representative of three independent experiments.
Supplemental figure S3. (A) Ex vivo culture of the WKY nephritic glomeruli shows a glomerulus positively stained for CD68 as well as surrounding CD68+ macrophages. (B) After 24 hours of culture, glomeruli were washed and the remaining macrophages were cultured for an additional 24 hours. Cells and supernatants were collected from glomeruli+macrophages and macrophages only were subjected to Caspase-1 Western Blotting (C). N=3 WKY rats were used for NTN induction.