Online Data Supplement

Thrombin receptor PAR4 drives canonical NLRP3 inflammsome signaling in the heart

Anke C. Fender¹, Sonja Kleeschulte², Svenja Stolte¹, Katja Leineweber¹, Markus Kamler³, Johannes Bode², Na Li⁴, Dobromir Dobrev¹

¹ Institute of Pharmacology, West German Heart and Vascular Center, Medical Faculty, University Duisburg-Essen, Germany

²Clinic for Gastroenterology, Hepatology and Infectious Diseases, University Hospital, Düsseldorf, Germany

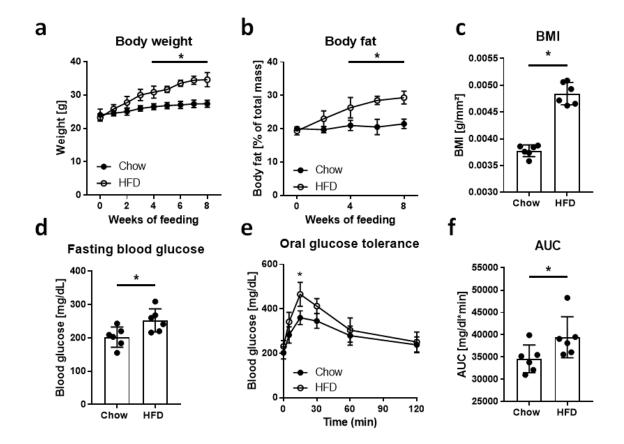
³ Department of Thoracic and Cardiovascular Surgery, West German Heart and Vascular Center, Medical Faculty, University Duisburg-Essen, Germany

⁴ Department of Medicine (Section of Cardiovascular Research), Baylor College of Medicine, Houston, TX, USA

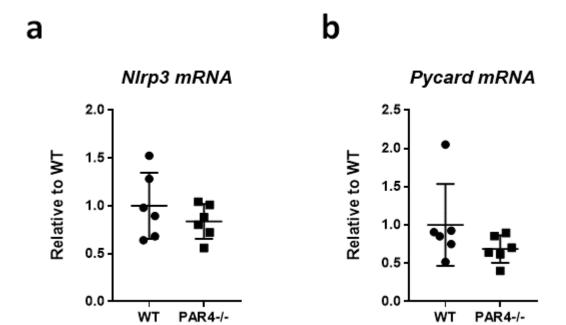
Corresponding author

Anke C. Fender

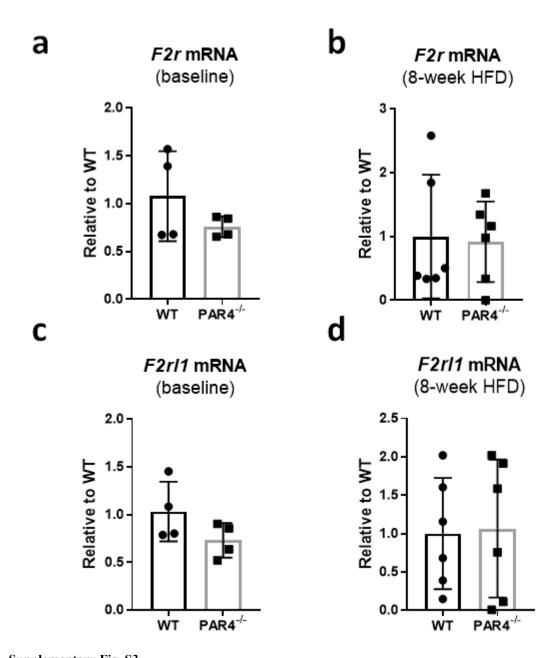
Institute of Pharmacology, West German Heart and Vascular Center University Duisburg-Essen, Hufelandstr. 55, 45122 Essen, Germany anke.fender@uk-essen.de



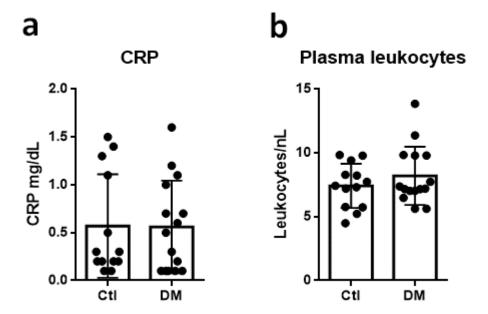
Supplementary Fig. S1 Mouse model of high fat diet (HFD)-induced metabolic disease. a Body weight, b body fat accumulation as % of total body mass and c BMI in mice fed HFD or standard chow for 8 weeks (n=6 each). d Fasting blood glucose, e oral glucose tolerance test (oGTT) and f area under the curves (AUC) of oGTT after 6 weeks of HFD or chow. Data show mean \pm SD. *P<0.05 vs. chow



Supplementary Fig. S2
PAR4 deletion does not affect NLRP3 or ASC gene expression in HFD-fed mice. a Nlrp3 and b Pycard (ASC) mRNA expression, normalized to GATA4, in LV lysates of wildtype (WT) and PAR4^{-/-} mice fed a HFD for 8 weeks (n=6 each). Data show mean ± SD, relative to WT.



Supplementary Fig. S3PAR4 deletion does not significantly regulate other PAR subtypes. **a** *F2r* (PAR1) mRNA expression, normalized to ribosomal 18S, in LV lysates of wildtype (WT) and PAR4^{-/-} mice, determined prior to (n=4) or **b** after 8 weeks of HFD (n=6). **c** *F2rl1* (PAR2) mRNA prior to (n=4) or **d** after 8 weeks of HFD (n=6). Data show mean ± SD, relative to WT.



Supplementary Fig. S4 Inflammatory plasma markers. a Plasma levels of C-reactive protein (CRP) and b leukocyte counts determined in patients with type 2 diabetes mellitus (DM, n=15) or non-diabetic control patients (Ctl, n=13) prior to cardiac surgery and tissue sampling. Data show mean \pm SD, relative to Ctl.