

Major Resources Table

In order to allow validation and replication of experiments, all essential research materials listed in the Methods should be included in the Major Resources Table below. Authors are encouraged to use public repositories for protocols, data, code, and other materials and provide persistent identifiers and/or links to repositories when available. Authors may add or delete rows as needed.

Animals (in vivo studies)

Species	Vendor or Source	Background Strain	Sex	Persistent ID / URL
C57BL6/J	Jackson Laboratories	C57BL6/J	M	000664
C57BL6/J	Jackson Laboratories	C57BL6/J	F	000664
Db/db mice	Jackson Laboratories	C57BL6/J	M/F	000697

Genetically Modified Animals

	Species	Vendor or Source	Background Strain	Other Information	Persistent ID / URL
Parent - Male					
Parent - Female					

Antibodies

Target antigen	Vendor or Source	Catalog #	Working concentration	Lot # (preferred but not required)	Persistent ID / URL
CD68	Invitrogen	MA5-13324	1:1000		
IL1b	Cell Signal	31202	1:1000		Clone D6D6T
Alpha SMA	Dako	M0851	1:100		Clone 1A4
VWF	Dako	A0082	1:100		
IL1b Neutralizing Ab	BioXCell	BE0246	1 mg/ml		100 microgram per dose injected
Isotype Ab for IL1b	BioXCell	BE0091	1 mg/ml		100 microgram per dose injected
F4/80 Neutralizing ab	BioXcell	BE0206	1 mg/ml		100 microgram per dose injected
Isotype Ab for F4/80	BioXCell	BE0090	1 mg/ml		100 microgram per dose injected
Hashing Abs for sc-RNA-Seq	Biolegend	B0301-B0304	1:100		1:100 dilution in 100 microliters of 1e6 cells
Donkey anti-mouse IgG HRP conjugated	Thermo/Invitrogen	A16017	1:5000		
Donkey anti-rabbit IgG HRP conjugated	Thermo/Invitrogen	A16023	1:5000		

DNA/cDNA Clones

Clone Name	Sequence	Source / Repository	Persistent ID / URL

Cultured Cells

Name	Vendor or Source	Sex (F, M, or unknown)	Persistent ID / URL

DOI [to be added]

Data & Code Availability

Description	Source / Repository	Persistent ID / URL
Single cell sequencing process code	Website	https://github.com/kropskilab/myeloid_il1b

Other

Description	Source / Repository	Persistent ID / URL
Clodronate + PBS Liposomes	Liposoma	Batches: C29E0622, P20E0522
PBS Liposomes		

ARRIVE GUIDELINES

The ARRIVE guidelines (<https://arriveguidelines.org/>) are a checklist of recommendations to improve the reporting of research involving animals. Key elements of the study design should be included below to better enable readers to scrutinize the research adequately, evaluate its methodological rigor, and reproduce the methods or findings.

Study Design

Groups	Sex	Age	Number (prior to experiment)	Number (after termination)	Littermates (Yes/No)	Other description
Group 1 (Control)	M/F	8 weeks	9	9	NA	Directly purchased from Jackson and sacrificed at day 0
Group 2 (L-NAME + HFD 2 weeks)	M/F	8 weeks	9	9	NA	Directly purchased from Jackson and sacrificed after 2 weeks of L-NAME in water and high fat diet
Group 3 (L-NAME/HFD for 5 weeks)	M/F	8 weeks	9	9	NA	Directly purchased from Jackson and sacrificed after 5 weeks of L-NAME in water and high fat diet
Group 4 (L-NAME/HFD for 12 weeks)	M/F	8 weeks	9	9	NA	Directly purchased from Jackson and sacrificed after 12 weeks of L-NAME in water and high fat diet
Group 5 (L-NAME/HFD for 5 weeks)	M/F	8 weeks	8	8	NA	Directly purchased, but sacrificed for bulk RNA-seq (n=4) and single cell RNA-seq (n=4)
Group 6 (control for 5 weeks)	M/F	8 weeks	8	8	NA	Directly purchased, but sacrificed for bulk RNA-seq (n=4) and single cell

DOI [to be added]

						RNA-seq (n=4) after 5 weeks of normal diet and water
Group 7 (Clodronate + L-NAME/HFD)	M/F	8 weeks	8	8	NA	Directly purchased, sacrificed after 5 weeks of clodronate liposome IP injection and L-NAME/HFD
Group 8 (PBS liposome + L-NAME/HFD)	M/F	8 weeks	10	10	NA	Directly purchased, sacrificed after 5 weeks of PBS liposome IP injection and L-NAME/HFD
Group 9 (IL1b injection + L-NAME/HFD)	M/F	8 weeks	8	8	NA	Directly purchased, sacrificed after 5 weeks of L-NAME/HFD and 2 weeks of IL1b injection
Group 10 (Isotype injection + LNAME/HFD)	M/F	8 weeks	8	8	NA	Directly purchased, sacrificed after 5 weeks of L-NAME/HFD and 2 weeks of Isotype Ab injection
Group 11 (F4/80 Ab Injection + LNAME/HFD)	M/F	8 weeks	8	8	NA	Directly purchased, sacrificed after 5 weeks of L-NAME/HFD and 2 weeks of F4/80 Ab injection
Group 12 (Isotype Ab + LNAME/HFD for F4/80 Ab)	M/F	8 weeks	8	8	NA	Directly purchased, sacrificed after 5 weeks of L-NAME/HFD and 2 weeks of Isotype Ab injection for F4/80
Group 14 (db/db mice)	M/F	24 weeks	6	6	NA	Directly purchased and sacrificed at correct age
Group 15 (C57BL6/J mice)	M/F	24 weeks	6	6	NA	Directly purchased as control for Group 14 and sacrificed at correct age

Various controls

114 total mice

Sample Size: Please explain how the sample size was decided Please provide details of any a *prior* sample size calculation, if done.

Based on prior studies, we aimed to identify a 20% change in outcomes (primary outcome of RV systolic pressure) with underlying 15% variance in measurements between mice. With $\alpha = 0.05$, and $\beta = 0.2$, we expected a sample size of 8 mice per group to be adequate to detect differences between groups.

DOI [to be added]

Inclusion Criteria

Inclusion criteria included mice that arrived after purchase from Jackson Laboratories in good and healthy condition, defined by normal physical appearance and activity.

Exclusion Criteria

No mice were excluded from the study once the study began.

Randomization

Mice were randomized by even/odd number into each experimental group after direct purchase

Blinding

Scientists were not blinded to the experimental group for each mouse.