

## Reporting Summary

Nature Portfolio wishes to improve the reproducibility of the work that we publish. This form provides structure for consistency and transparency in reporting. For further information on Nature Portfolio policies, see our [Editorial Policies](#) and the [Editorial Policy Checklist](#).

### Statistics

For all statistical analyses, confirm that the following items are present in the figure legend, table legend, main text, or Methods section.

n/a Confirmed

- The exact sample size ( $n$ ) for each experimental group/condition, given as a discrete number and unit of measurement
- A statement on whether measurements were taken from distinct samples or whether the same sample was measured repeatedly
- The statistical test(s) used AND whether they are one- or two-sided  
*Only common tests should be described solely by name; describe more complex techniques in the Methods section.*
- A description of all covariates tested
- A description of any assumptions or corrections, such as tests of normality and adjustment for multiple comparisons
- A full description of the statistical parameters including central tendency (e.g. means) or other basic estimates (e.g. regression coefficient) AND variation (e.g. standard deviation) or associated estimates of uncertainty (e.g. confidence intervals)
- For null hypothesis testing, the test statistic (e.g.  $F$ ,  $t$ ,  $r$ ) with confidence intervals, effect sizes, degrees of freedom and  $P$  value noted  
*Give  $P$  values as exact values whenever suitable.*
- For Bayesian analysis, information on the choice of priors and Markov chain Monte Carlo settings
- For hierarchical and complex designs, identification of the appropriate level for tests and full reporting of outcomes
- Estimates of effect sizes (e.g. Cohen's  $d$ , Pearson's  $r$ ), indicating how they were calculated

*Our web collection on [statistics for biologists](#) contains articles on many of the points above.*

### Software and code

Policy information about [availability of computer code](#)

Data collection Images of micrographs were captured using a confocal laser scanning microscope (C2 ver4.10, Nikon). Immunostained cell were collected using FACSARIA by BD FACSDiva 4.1, or SONY cell sorter SH 800 series by software ver2.1.

Data analysis Adobe Photoshop CC 2018, ImageJ, Statcel-the Useful Addin Forms on Excel-4th ed, FlowJo software (V10), IBM SPSS (V23).

For manuscripts utilizing custom algorithms or software that are central to the research but not yet described in published literature, software must be made available to editors and reviewers. We strongly encourage code deposition in a community repository (e.g. GitHub). See the Nature Portfolio [guidelines for submitting code & software](#) for further information.

### Data

Policy information about [availability of data](#)

All manuscripts must include a [data availability statement](#). This statement should provide the following information, where applicable:

- Accession codes, unique identifiers, or web links for publicly available datasets
- A description of any restrictions on data availability
- For clinical datasets or third party data, please ensure that the statement adheres to our [policy](#)

All data supporting the findings of this study are found within the manuscript and its Supplementary information, and are available from the corresponding author upon reasonable request. Source data are provided with this paper.

## Field-specific reporting

Please select the one below that is the best fit for your research. If you are not sure, read the appropriate sections before making your selection.

Life sciences       Behavioural & social sciences       Ecological, evolutionary & environmental sciences

For a reference copy of the document with all sections, see [nature.com/documents/nr-reporting-summary-flat.pdf](https://www.nature.com/documents/nr-reporting-summary-flat.pdf)

## Life sciences study design

All studies must disclose on these points even when the disclosure is negative.

Sample size	No statistical methods were used to predetermine sample size, but our sample sizes are similar to those reported in previous publications. A minimum of three biologically independent samples were tested, and experiments performed in at least 2 independent instances (mostly 3) with similar results. Sample size was based on pilot experiments and previous experience with similar experiments in the laboratory. Data from individual experiments were pooled to achieve power.
Data exclusions	No data was excluded.
Replication	Behavioral experiments on mice were conducted with a sufficient number of animals (6 to 33) to take individual differences into account. Experiments were conducted at least five times. All experiments were performed in multiple independent experiments as indicated in the figure legends. All attempts for littermates were successfully performed by multiple investigators using independent litter of mice.
Randomization	Transgenic mice were predetermined by mouse genotype and therefore could not be randomized. Littermates were assigned into the control or knockout groups after genotyping. In all the behavioral tests, however, examiners were always blind to the genotypes of mice, the kinds of treatments, and the sides of hind paws that received injections. After the evaluation was done, the behavioral data were analyzed by a different researcher. C57BL/6J mice were randomly assigned to treatment and control groups. All mice were age-matched.
Blinding	Experimentors was blinded to the identify of mice being analyzed in behavioral tests. For experiments other than behavioral tests, experimentors were not blinded. Blinding was not possible as predominately one person was responsible for performing each experiment and carrying out data analysis. Blinding was not relevant because the quantification of signal intensity in Immunoblot or images, and analysis of gene expression level using thermal cycler were performed under the same conditions as in the control group, respectively.

## Reporting for specific materials, systems and methods

We require information from authors about some types of materials, experimental systems and methods used in many studies. Here, indicate whether each material, system or method listed is relevant to your study. If you are not sure if a list item applies to your research, read the appropriate section before selecting a response.

### Materials & experimental systems

n/a	Involved in the study
<input type="checkbox"/>	<input checked="" type="checkbox"/> Antibodies
<input type="checkbox"/>	<input checked="" type="checkbox"/> Eukaryotic cell lines
<input checked="" type="checkbox"/>	<input type="checkbox"/> Palaeontology and archaeology
<input type="checkbox"/>	<input checked="" type="checkbox"/> Animals and other organisms
<input checked="" type="checkbox"/>	<input type="checkbox"/> Human research participants
<input checked="" type="checkbox"/>	<input type="checkbox"/> Clinical data
<input checked="" type="checkbox"/>	<input type="checkbox"/> Dual use research of concern

### Methods

n/a	Involved in the study
<input checked="" type="checkbox"/>	<input type="checkbox"/> ChIP-seq
<input type="checkbox"/>	<input checked="" type="checkbox"/> Flow cytometry
<input checked="" type="checkbox"/>	<input type="checkbox"/> MRI-based neuroimaging

## Antibodies

### Antibodies used

Mouse anti-NF200 (N0142, Sigma-Aldrich, clone N52) 1:1000, AB\_477257  
 Mouse anti-PGP9.5 (ab8189, Abcam, clone 13C4 / I3C4) 1:500, AB\_306343  
 Mouse anti-NeuN (MAB377, Millipore, clone A60) 1:150, AB\_2298772  
 Mouse anti-GFAP (MAB360, Millipore, clone GA5) 1:500, AB\_11212597  
 Rabbit anti-c-Fos (226003, Synaptic Systems) 1:10000, AB\_2231974  
 Rabbit anti-TRPV1 (KM018, Trans Genic) 1:100, AB\_1627247  
 Rabbit anti-TrkA (ab76291, Abcam) 1:150-1:1000, AB\_1524514  
 Rabbit anti-Iba1 (019-19741, Wako) 1:500, AB\_839504  
 Rabbit anti-F4/80 (28463-1-AP, Proteintech) 1:2000, AB\_2881149  
 Rabbit anti-NGF (sc-548, Santa Cruz Biotechnology) 1:200-1:1000, AB\_632011  
 Rabbit anti-GFP (A6455, Thermo Fisher Scientific) 1:5000, AB\_221570  
 Rabbit anti-SNX25 (13294-1-AP, Proteintech) 1:500, AB\_2192549  
 Rabbit anti-Nrf2 (sc-722, Santa Cruz Biotechnology) 1:500, AB\_2108502  
 Rabbit anti-HO-1 (ADI-SPA-896, Enzo Life Sciences,) 1:500, AB\_10614948

Rabbit anti-TGFBRI (sc-398, Santa Cruz Biotechnology) 1:200, AB\_632493  
 Rabbit anti-GAPDH (ABS16, Merk Millipore) 1:2000, AB\_10806772  
 Rat anti-MHCII (NBP1-43312, Novus Biologicals) 1:100, AB\_10006677  
 Rat anti-F4/80 (NB600-404, Novus Biologicals) 1:500, AB\_10003219  
 Rat anti-CD117 (MAB1356, R&D Systems) 1:100, AB\_2131131  
 Rat anti-CCR2 (NBP1-48337, Novus Biologicals) 1:200, AB\_10011101  
 Rat anti-GFP (04404-84, Nacalai Tesque) 1:5000, AB\_10013361  
 Goat anti-CD206 (AF2535, R&D Systems) 1:500-1:1000, AB\_2063012  
 Alexa Fluor 488-anti-CD11b (101219, BioLegend, clone, M1/70) 1:100, AB\_493545  
 Alexa Fluor 647-anti-F4/80 (123121, BioLegend, clone, BM8) 1:100, AB\_893480  
 APC anti-CD64 (139306, BioLegend, clone, X54-5/7.1) 1:25, AB\_11219391  
 APC/Cyanine7 Ly6C (128025, BioLegend, clone HK1.4) 1:100, AB\_10643867  
 Biotin anti-CD4 (100403, BioLegend, clone GK1.5) 1:100-1:200, AB\_312688  
 Biotin anti-CD8a (100703, BioLegend, clone 53-6.7) 1:100-1:200, AB\_312742  
 Biotin anti-Ly6G/Ly6C (108403, BioLegend, clone Gr1) 1:100-1:200, AB\_313368  
 Biotin anti-NK1.1 (108703, BioLegend, clone PK136) 1:100-1:200, AB\_313390  
 Biotin-anti-CD19 (115504, BioLegend, clone 6D5) 1:100, AB\_313639  
 Biotin anti-CD19 (13-0193-81, eBioscience, clone 1D3) 1:100-1:200, AB\_657657  
 Biotin anti-MHCII (107603, BioLegend, clone M5/114.15.2) 1:100, AB\_313318  
 Biotin anti-F4/80 (123105, BioLegend, clone BM8) 1:100-1:500, AB\_893499  
 Biotin anti-CD3 (100243, BioLegend, clone 17A2) 1:100, AB\_2563946  
 Biotin anti-TER119 (116203, BioLegend, clone TER-119) 1:100, AB\_313704  
 Biotin anti-Ly6G (127603, BioLegend, clone 1A8) 1:100, AB\_1186105  
 FITC-anti-MHCII (107605, BioLegend, clone M5/114.15.2) 1:100, AB\_313320  
 PE/Cyanine7 anti-CD45 (103113, BioLegend, clone 30-F11) 1:100, AB\_312979  
 PE anti-CD11b (101207, BioLegend, clone M1/70) 1:100, AB\_312790  
 PE anti-CD45 (103106, BioLegend, clone 30-F11) 1:100, AB\_312971  
 BV421 anti-mouse CD45 (103131, BioLegend, clone 30-F11) 1:00, AB\_10899570  
 Brilliant violet 421 anti-CD24 (101825, BioLegend, clone M1/69) 1:100, AB\_10901159  
 PerCP-Cyanine5.5 streptavidin (405214, BioLegend) 1:200, AB\_2716577  
 APC-Streptavidin (405207, BioLegend) 1:200  
 TruStain FcX™ PLUS (CD16/32 antibody, 156604, BioLegend, clone S17011E) 1:100, AB\_2783138

## Validation

All antibodies used are commercially available as described in the manuscript. We selected antibody clones that have been extensively used in the literature. We also titrated all antibodies prior to experiments.

Mouse anti-NF200 (N0142, Sigma-Aldrich, clone N52)  
<https://www.sigmaaldrich.com/deepweb/assets/sigmaaldrich/product/documents/355/551/n0142dat.pdf>

Mouse anti-PGP9.5 (ab8189, Abcam, clone 13C4 / I3C4)  
<https://www.abcam.co.jp/pgp95-antibody-13c4-i3c4-ab8189.html>

Mouse anti-NeuN (MAB377, Millipore, clone A60)  
[https://www.merckmillipore.com/JP/ja/product/Anti-NeuN-Antibody-clone-A60,MM\\_NF-MAB377](https://www.merckmillipore.com/JP/ja/product/Anti-NeuN-Antibody-clone-A60,MM_NF-MAB377)

Mouse anti-GFAP (MAB360, Millipore, clone GA5)  
[https://www.merckmillipore.com/JP/ja/product/Anti-Glial-Fibrillary-Acidic-Protein-Antibody-clone-GA5,MM\\_NF-MAB360](https://www.merckmillipore.com/JP/ja/product/Anti-Glial-Fibrillary-Acidic-Protein-Antibody-clone-GA5,MM_NF-MAB360)

Rabbit anti-c-Fos (226003, Synaptic Systems)  
<https://sysy.com/product/226003>

Rabbit anti-TRPV1 (KM018, Trans Genic)  
[https://www.scteci.co.jp/images/upload/export/1013\\_KM018\\_p.pdf](https://www.scteci.co.jp/images/upload/export/1013_KM018_p.pdf)

Rabbit anti-TrkA (ab76291, Abcam)  
<https://www.abcam.co.jp/pan-trk-antibody-ep1058y-ab76291.html>

Rabbit anti-lba1 (019-19741, Wako)  
<https://labchem-wako.fujifilm.com/us/product/detail/W01W0101-1974.html>

Rabbit anti-F4/80 (28463-1-AP, Proteintech)  
<https://www.ptglab.co.jp/products/F4-80-Antibody-28463-1-AP.htm>

Rabbit anti-NGF (sc-548, Santa Cruz Biotechnology)  
<https://datasheets.scbt.com/sc-548.pdf>

Rabbit anti-GFP (A6455, Thermo Fisher Scientific)  
<https://www.thermofisher.com/antibody/product/GFP-Antibody-Polyclonal/A-6455>

Rabbit anti-SNX25 (13294-1-AP, Proteintech)  
<https://www.ptglab.co.jp/products/SNX25-Antibody-13294-1-AP.htm>

Rabbit anti-Nrf2 (sc-722, Santa Cruz Biotechnology)  
<https://datasheets.scbt.com/sc-722.pdf>

Rabbit anti-HO-1 (ADI-SPA-896, Enzo Life Sciences,  
<https://www.enzolifesciences.com/ADI-SPA-896/ho-1-polyclonal-antibody/>

Rabbit anti-TGFbRI (sc-398, Santa Cruz Biotechnology)  
<https://datasheets.scbt.com/sc-398.pdf>

Rabbit anti-GAPDH (ABS16, Merk Millipore)  
[https://www.merckmillipore.com/JP/ja/product/Anti-GAPDH-Antibody,MM\\_NF-ABS16](https://www.merckmillipore.com/JP/ja/product/Anti-GAPDH-Antibody,MM_NF-ABS16)

Rat anti-MHCII (NBP1-43312, Novus Biologicals)  
[https://www.novusbio.com/products/mhc-class-ii-i-a-i-e-antibody-m5-114152\\_nbp1-43312](https://www.novusbio.com/products/mhc-class-ii-i-a-i-e-antibody-m5-114152_nbp1-43312)

Rat anti-F4/80 (NB600-404, Novus Biologicals)  
[https://www.novusbio.com/products/f4-80-antibody-ci-a3-1\\_nb600-404](https://www.novusbio.com/products/f4-80-antibody-ci-a3-1_nb600-404)

Rat anti-CD117 (MAB1356, R&D Systems)  
[https://www.rndsystems.com/products/mouse-cd117-c-kit-antibody-180627\\_mab1356](https://www.rndsystems.com/products/mouse-cd117-c-kit-antibody-180627_mab1356)

Rat anti-CCR2 (NBP1-48337, Novus Biologicals)  
[https://www.novusbio.com/products/ccr2-antibody\\_nbp1-48337](https://www.novusbio.com/products/ccr2-antibody_nbp1-48337)

Rat anti-GFP (04404-84, Nacalai Tesque)  
<https://www.nacalai.co.jp/ss/ec2/EC-srchdetl.cfm?jump=EC-srchdetl&syohin=0440484&syubetsu=3>

Goat anti-CD206 (AF2535, R&D Systems)  
[https://www.rndsystems.com/products/mouse-mmr-cd206-antibody\\_af2535](https://www.rndsystems.com/products/mouse-mmr-cd206-antibody_af2535)

Alexa Fluor 488-anti-CD11b (101219, BioLegend, clone, M1/70)  
<https://www.biolegend.com/ja-jp/clone-search/alexa-fluor-488-anti-mouse-human-cd11b-antibody-2700>

Alexa Fluor 647-anti-F4/80 (123121, Biolegend, clone, BM8)  
<https://www.biolegend.com/ja-jp/sean-tuckers-tests/alexa-fluor-647-anti-mouse-f4-80-antibody-4074>

APC anti-CD64 (139306, BioLegend, clone, X54-5/7.1)  
<https://www.biolegend.com/ja-jp/clone-search/apc-anti-mouse-cd64-fcgammar-i-antibody-7874>

APC/Cyanine7 Ly6C (128025, BioLegend, clone HK1.4)  
<https://www.biolegend.com/ja-jp/explore-new-products/apc-cyanine7-anti-mouse-ly-6c-antibody-6758?GroupID=BLG5853>

Biotin anti-CD4 (100403, BioLegend, clone GK1.5)  
<https://www.biolegend.com/ja-jp/products/biotin-anti-mouse-cd4-antibody-247>

Biotin anti-CD8a (100703, BioLegend, clone 53-6.7)  
<https://www.biolegend.com/ja-jp/productstab/biotin-anti-mouse-cd8a-antibody-152>

Biotin anti-Ly6G/Ly6C (108403, BioLegend, clone Gr1)  
<https://www.biolegend.com/ja-jp/neuroscience-1/biotin-anti-mouse-ly-6g-ly-6c-gr-1-antibody-457?GroupID=BLG4876>

Biotin anti-NK1.1 (108703, BioLegend, clone PK136)  
<https://www.biolegend.com/ja-jp/productstab/biotin-anti-mouse-nk-1-1-antibody-428>

Biotin anti-CD19 (115504, BioLegend, clone 6D5)  
<https://www.biolegend.com/ja-jp/products/biotin-anti-mouse-cd19-antibody-1527>

Biotin anti-CD19 (13-0193-81, eBioscience, clone 1D3)  
<https://www.thermofisher.com/antibody/product/CD19-Antibody-clone-eBio1D3-1D3-Monoclonal/16-0193-81>

Biotin anti-MHCII (107603, BioLegend, clone M5/114.15.2)  
<https://www.biolegend.com/fr-lu/products/biotin-anti-mouse-i-a-i-e-antibody-365?pdf=true&displayInLine=true&leftRightMargin=15&topBottomMargin=15&filename=Biotin%20anti-mouse%20A/I-E%20Antibody.pdf>

Biotin anti-F4/80 (123105, BioLegend, clone BM8)  
<https://www.biolegend.com/ja-jp/products/biotin-anti-mouse-f4-80-antibody-4066?GroupID=BLG5319>

Biotin anti-CD3 (100243, BioLegend, clone 17A2)  
<https://production.biolegend.com/ja-jp/products/biotin-anti-mouse-cd3-antibody-10023>

Biotin anti-TER119 (116203, BioLegend, clone TER-119)  
<https://www.biolegend.com/ja-jp/productstab/biotin-anti-mouse-ter-119-erythroid-cells-antibody-1864?GroupID=ImportedGROUP1>

Biotin anti-Ly6G (127603, BioLegend, clone 1A8)  
<https://www.biolegend.com/ja-jp/products/biotin-anti-mouse-ly-6g-antibody-4772>

FITC-anti-MHCII (107605, BioLegend, clone M5/114.15.2)  
<https://www.biolegend.com/ja-jp/clone-search/fitc-anti-mouse-i-a-i-e-antibody-366?GroupID=BLG11931>

PE/Cyanine7 anti-CD45 (103113, BioLegend, clone 30-F11)  
<https://www.biolegend.com/ja-jp/products/pe-cyanine7-anti-mouse-cd45-antibody-1903>

PE anti-CD11b (101207, BioLegend, clone M1/70)  
<https://www.biolegend.com/ja-jp/products/pe-anti-mouse-human-cd11b-antibody-349>

PE anti-CD45 (103106, BioLegend, clone 30-F11)  
<https://www.biolegend.com/ja-jp/explore-new-products/pe-anti-mouse-cd45-antibody-100>

BV421 anti-mouse CD45 (103131, BioLegend, clone 30-F11)  
<https://www.biolegend.com/ja-jp/explore-new-products/brilliant-violet-421-anti-mouse-cd45-antibody-7253>

Brilliant violet 421 anti-CD24 (101825, BioLegend, clone M1/69)  
<https://www.biolegend.com/ja-jp/explore-new-products/brilliant-violet-421-anti-mouse-cd24-antibody-7323>

PerCP-Cyanine5.5 streptavidin (405214, BioLegend)  
<https://www.biolegend.com/ja-jp/products/percp-cyanine5-5-streptavidin-4212>  
 AAPC-Streptavidin (405207, BioLegend)  
<https://www.biolegend.com/ja-jp/explore-new-products/apc-streptavidin-1470>

TruStain FcX™ PLUS (CD16/32 antibody, 156604, BioLegend, clone S17011E)  
<https://www.biolegend.com/en-us/punchout/punchout-products/trustain-fcx-plus-anti-mouse-cd16-32-antibody-17085?GroupID=GROUP20>

## Eukaryotic cell lines

Policy information about [cell lines](#)

Cell line source(s)	293T (RRID:CVCL_0063), RAW264.7 (RRID:CVCL_0493)
Authentication	293T cells (ECACC 12022001), RAW264.7 (ECACC 91062702)
Mycoplasma contamination	Cell-lines were not tested for mycoplasma contamination.
Commonly misidentified lines (See <a href="#">ICLAC</a> register)	N/A

## Animals and other organisms

Policy information about [studies involving animals](#); [ARRIVE guidelines](#) recommended for reporting animal research

Laboratory animals	<p>C57BL/6J, RRID:IMSR_JAX:000664</p> <p>Mlc1Tgmice (B6; CBB6(129)-Tg(Mlc1-tTA)2Rh), RBRC05450</p> <p>Snx25 constitutive KO (Snx25+/-) mice (C57BL/6N-Atm1Brd Snx25tm1a(KOMP)Wtsi/NjuMmucd, strain number, T001400), RRID:MMRRC_068035-UCD</p> <p>CAG-Flpo mice (B6.Cg-Tg(CAG-FLPo)/10sb), RBRC09982</p> <p>Advillin-Cre mice (B6.Cg-Tg(Avil-Cre/ERT2)AJwo/J) (Jackson Laboratory, Stock No: 032027), RRID:IMSR_JAX:032027</p> <p>Cx3cr1CreERT2 mice (B6.129P2(C)-Cx3cr1tm2.1(Cre/ERT2)Jung/J) (Jackson Laboratory, Stock No: 020940), RRID:IMSR_JAX:020940</p> <p>Ai39 mice, RCL-eNpHR3.0-EYFP, Jackson Laboratory, Stock No: 014539), RRID:IMSR_JAX:014539</p> <p>Ai32 mice, RCL-ChR2(H134R)/EYFP, Jackson Laboratory, Stock No: 012569), RRID:IMSR_JAX:012569</p> <p>GFP mice (C57BL/6-Tg (CAG-EGFP)), RBRC00267</p> <p>All the protocols for the animal experiments were approved by the Animal Care Committee of Nara Medical University in accordance with the policies established in the NIH Guide for the Care and Use of Laboratory Animals. This study was also carried out in compliance with the ARRIVE guidelines (<a href="https://arriveguidelines.org/">https://arriveguidelines.org/</a>).</p>
Wild animals	No wild animals were used in this study.
Field-collected samples	No field collected samples were used in this study.
Ethics oversight	All the protocols for the animal experiments were approved by the Animal Care Committee of Nara Medical University in accordance with the policies established in the NIH Guide for the Care and Use of Laboratory Animals. This study was also carried out in compliance with the ARRIVE guidelines ( <a href="https://arriveguidelines.org/">https://arriveguidelines.org/</a> ).

## Flow Cytometry

### Plots

Confirm that:

- The axis labels state the marker and fluorochrome used (e.g. CD4-FITC).
- The axis scales are clearly visible. Include numbers along axes only for bottom left plot of group (a 'group' is an analysis of identical markers).
- All plots are contour plots with outliers or pseudocolor plots.
- A numerical value for number of cells or percentage (with statistics) is provided.

### Methodology

Sample preparation	Skin from mice were collected and dissociated using Multi Tissue Dissociation Kit 1 (Miltenyi Biotec, Germany).
Instrument	FACSAria (BD), Cell Sorter SH800 (Sony)
Software	Data was collected using BD FACSDiva Software and analyzed using FlowJo software (Tree Star).
Cell population abundance	Purity of sorted macrophages was more than 94%.
Gating strategy	<p>For flow cytometry gating strategy for skin macrophages under inflammatory condition, cells isolated from hind paw skin were stained with CD11b, CD45 and F4/80. Living leukocytes were identified as 7-AAD negative CD45+ cells within medium forward scatter (FSC) and low side scatter (SSC) population. Macrophage compartment was identified as CD11b+F4/80+ cells within living leukocytes.</p> <p>Dermal macrophages are defined by Fc-g receptor 1 (CD64) expression in lineage (CD3, CD19, Ly6G, NK1.1, TER119, and Langerhans cell marker CD24) negative CD45+ CD11b+ Ly6C- population and subdivided by the expression of MHCII. CD45 positive cells were isolated using magnetic beads from enzymatically digesting saline-perfused mouse skins, and then myeloid populations, including dermal macrophages (CD64+ Ly6C- MHCII+), dermal monocytes (CD64- Ly6C+ MHCII lo), and dermal dendritic cells (CD64- Ly6C- MHCII+) in the lineage- CD11b+ live cells were sorted.</p> <p>For flow cytometry gating strategy for dermal myeloid cells including macrophages in mixed BM chimeric mice, dermal myeloid cells including macrophages were selectively collected from the skin of the mixed BM chimeric mice by FACS using FVS700, CD11b, CD45.1, CD45.2 and lineage (CD3, CD19, NK1.1, TER119, Ly6G) marker expression.</p>

- Tick this box to confirm that a figure exemplifying the gating strategy is provided in the Supplementary Information.