Supplemental methods

DNA Isolation and PCR analysis

DNA was extracted with phenol/chloroform/isoamyl alcohol and PCR was performed with DNA polymerase KOD FX neo (Toyobo) according to the procedure provided by the manufacturer. Cre-mediated excision of 5th and 6th exons of Mr gene results in the production of Mr null allele. The presence of the floxed allele generated a 2.7-kbp PCR product while the null allele generated a 0.5-kbp PCR product. The primer pair used for PCR was as follows.

Forward primer: 5′-CCACTTTGTATCGGCAATACAGTTTAGTC-3′; Reverse primer: 5′-CTGTGATGCGCTCGGAA ACGG -3′ (McCurley et al. 2012).

Evaluation of adipocytes area

Hematoxylin-eosin-stained epididymal adipose tissues from HFHSD-fed MR flox/flox and AdipoMR-KO mice (n = 3, for each) were measured and calculated using a BZ-X microscope analyzer (Keyence, Osaka, Japan).

Organ weight of normal-chow-fed mice

Animal experiment were conducted as stated above. 28-week-old singly housed male C57BL/6 mice (n = 3, for each) were fasted from 09:00 to 13:00. Then, they were sacrificed with pentobarbital (100 mg/kg BW) and their organs were weighed.

Blood glucose and insulin levels of normal-chow-fed mice

5-week-old male MR flox/flox and AdipoMR-KO mice (n = 3, for each) were singly housed and fed normal chow. The mice were fasted from 09:00 to 13:00 at 13 and 17 weeks of age.
Blood samples were collected from their tail vein. Glucose and insulin levels were then measured as previously mentioned.

References