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**Supplemental Information**

# Adipose Subtype-Selective Recruitment of TLE3 or Prdm16 by PPARγ Specifies Lipid Storage versus Thermogenic Gene Programs

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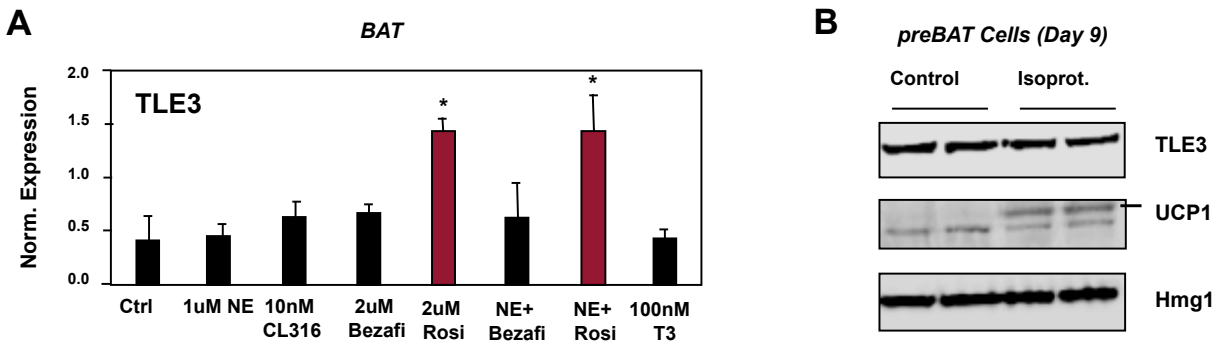


**Figure S1. Induction of TLE3 Expression in Brown Preadipocytes by PPARγ Agonists, Related to Figure 1**

**A.** Real-time PCR analysis of TLE3 expression in immortalized primary brown preadipocytes treated with various stimuli. B. Immunoblot analysis of TLE3 protein expression in differentiated brown preadipocytes treated on Day 9 of differentiation with vehicle or 5 μM isoproterenol as indicated.

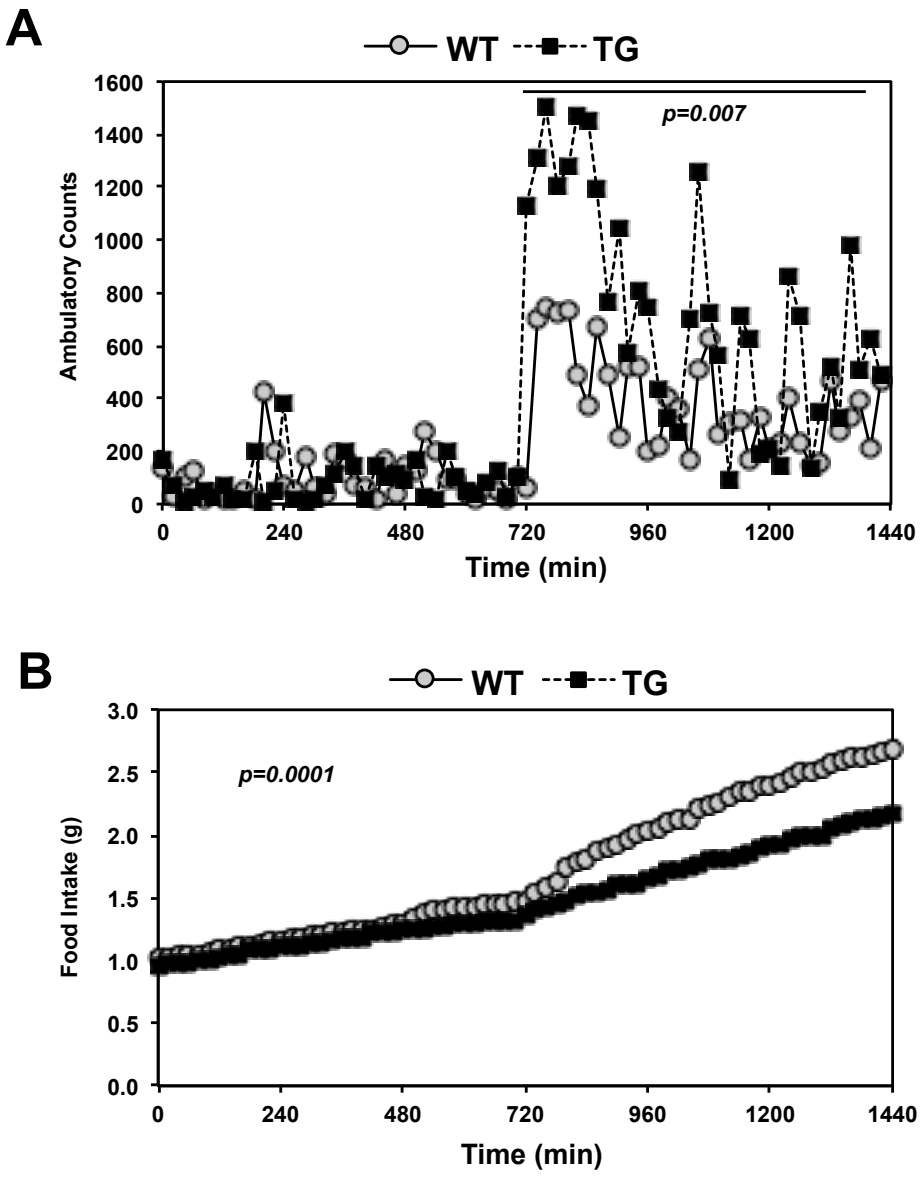


**Figure S2. Related to Figure 2**

Physical activity (A) and food intake (B) in aP2-TLE3 Tg and littermate control mice (N=5) determined by housing in Oxymax metabolic cages.

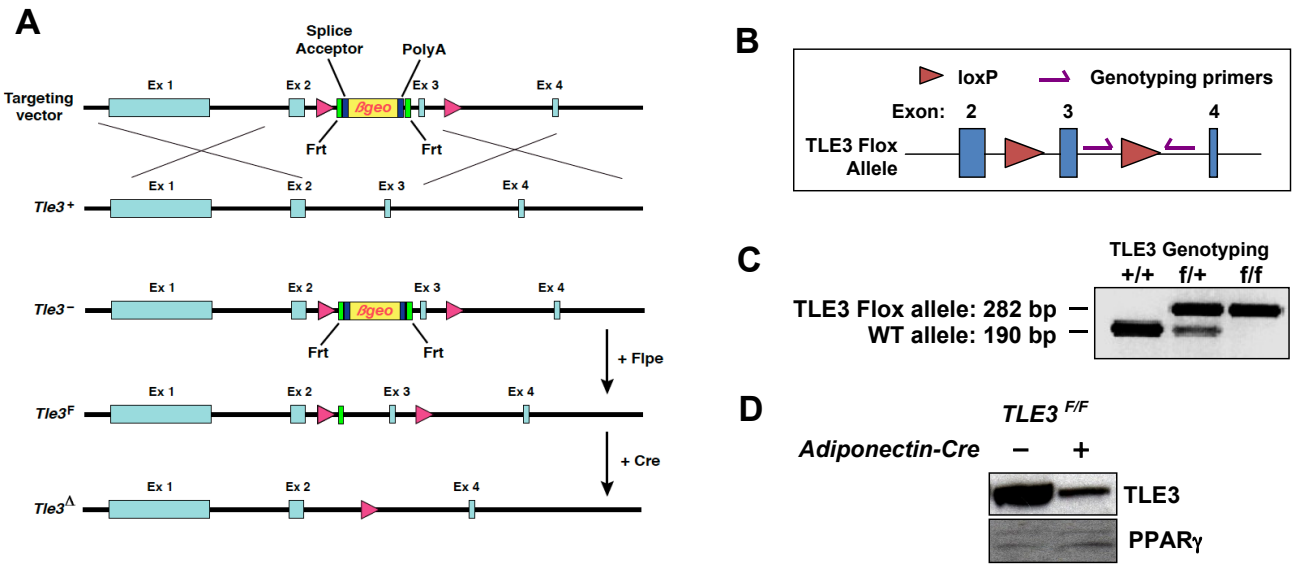


**Figure S3. Strategy for the Generation of Adipose-Specific TLE3 Knockout Mice, Related to Figure 4**

A. Schematic of the *Tle3* targeting vector containing a *βgeo* gene-trapping cassette (flanked by Frt sites; green) in intron 2 and a pair of loxP sites (red triangles) flanking exon 3. After recombination with the targeting vector, the targeted allele (*Tle3*$^{-}$) will produce a fusion transcript consisting of exons 1 and 2 of *Tle3* and βgeo. Removal of the *βgeo* gene-trapping cassette with *Flp* recombinase creates a floxed allele (*Tle3*$^{F}$). *Cre* recombinase removes exon 3 from *Tle3*$^{F}$, generating a frameshift and creating a delta allele (*Tle3*$^{\Delta}$). Open squares represent exons. LoxP and Frt sites are depicted as red triangles and green squares, respectively. B. Schematic illustration of pCR genotyping strategy. C. PCR analysis of WT and Ad-TLE3 KO mice. D. TLE3 protein expression in epididymal adipose tissue from WT and Ad-TLE3 KO mice.

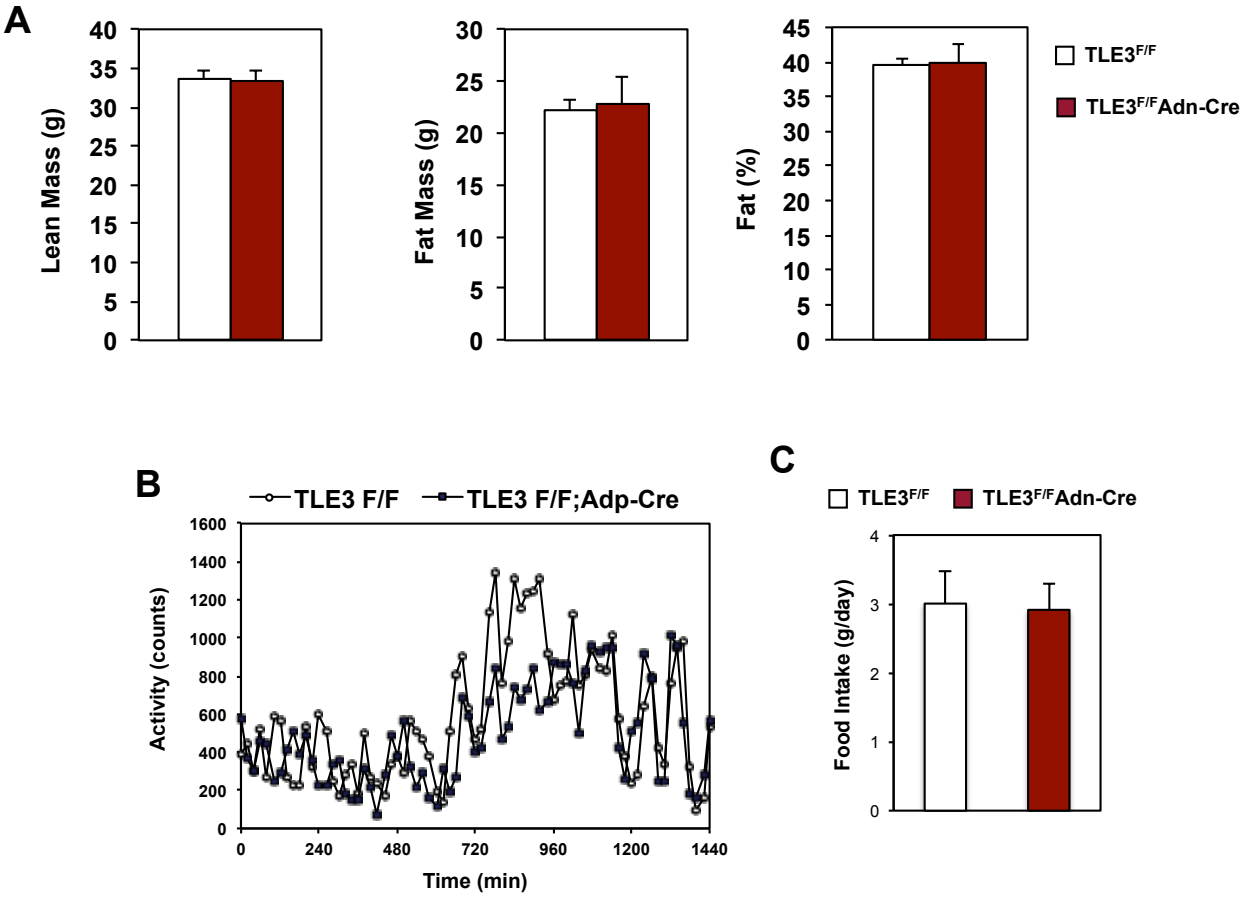


**Figure S4. Related to Figure 4**

Physical activity (A) and food intake (B) in Cre-negative and Cre-positive TLE3$^{F/F}$ mice (N=6-10/group) determined by housing in Oxymax metabolic cages.

**Table S1. Murine qPCR Primers**

aP2 F caccgcagacgacaggaag
aP2 R gcacctgcaccagggc
CD36 F ttgaaaagtctcggacattgag
CD36 R tcagatccgaacacagcgta
Plin F ccatctctacccgccttcg
Plin R cttgtcagaggtgcttgcaatg
Lyz2 F gaatggaatggctggctact
Lyz2 R cgtgctgagctaaacacacc
Serpina3k F agccaacaaccctgaacatc
Serpina3k R tccccatagctacaatgaagg
Ephx1 F tccctcaattcctggctatg
Ephx1 R ggccaccgaatttaaaccttt
Pltp F gtctaaaatgaatatggccttcg
Ptlp R ccagaagtgatgaacgtgga
Otop1 F actaggaccccgtcgaatct
Otop1 R accatgctctacgtgctgtg
Cldn1 F cttgacccccatcaatgc
Cldn1 R cacctcccagaaggcaga
Dhrs9 F atttggtggaggggggcta
Dhrs9 R tgcacaccaaaagctttcat
Elovl3 F tccgcgttctcatgtaggtct
Elovl3 R ggacctgatgcaaccctatga
Eva1 F gtcccaaccagaccatcaac
Eva1 R ctccatcttgctctggaagc
Dio2 F cagtgtggtgcacgtctccaatc
Dio2 R tgaaccaaagttgaccaccag
Fgf21 F agatggagctctctatggatcg
Fgf21 R gggcttcagactggtacacat
UCP1 F ggcctctacgactcagtcca
UCP1 R taagccggctgagatcttgt
Prdm16 F gccatgtgtcagatcaacga
Prdm16 R ccttctttcacatgcaccaa
Fbxo21 F cttgaacctctacatgcaccag
Fbxo21 R aagtggcttgggaagttgac
Itpk1 F cacatcagatcgtgagtccatc
Itpk1 R gaagactccggctttgacac
Gmpr F ctcaaggggcacatcatctc
Gmpr R aaaggctttggcgacatct
Socs2 F ccccttaggtagttttagctgaatg
Socs2 R tttaaaagggccatttgatctt
36B4 F agatgcagcagatccgcat
36B4 R gttcttgcccatcagcacc

Murine ChIP Primers
Plin F tcaccctcgcccttaggatc PPRE
Plin R tggctgcttctgtacggattc
Adrp F tgtaggtgaaagggcaaagaaag PPRE
Adrp R gtccaccgcttgttactccc
Dhrs9 F cctttggaaacctgtgacct PPRE
Dhrs9 R tgcaacaccaagtggtgacta
aP2 F gagagcaaatggagttcccaga PPRE
aP2 R ttgggctgtgacacttccac
Chr. 15 F tggtagcctcaggagcttgc
Chr. 15 R atccaagatgggaccaagctg