Supplementary Figure 1. (G, H) HE staining of sections from auricles of *Ali14/+* mice. Ulceration and infiltration of inflammatory cells in dermis were observed. (I, H) HE staining of sections of *Ali14/+* spleen. Proliferation of granulocytes was observed in red pulp. Immunohistochemistry using anti-myeloperoxidase antibodies revealed majority of inflammatory cells in the auricle (K) and the spleen (L) were granulocytes. (H) and (J) are magnification of insets in (G) and (I), respectively. Original magnification: (G) and (I), x12.5; (H) and (J), x200; (K) and (L), x100.

Supplementary Table 1. Peripheral quantitative computed tomography (pQCT) analysis of femoral metaphysis in
Plcg2$^{Ali14/+}$ mice

Parameter	Male (n)			Female (n)		
	wild type (10)	*Plcg2$^{Ali14/+}$* (9)	*P*-value	*wild type* (10)	*Plcg2$^{Ali14/+}$* (10)	*P*-value
Total density (mg/cm^3)	616±5	580±5	<0.005	744±8	692±7	<0.005
Trabecular density (mg/cm^3)	294±4	273±6	<0.005	296±6	255±5	<0.005
Cortical density (mg/cm^3)	823±6	809±7	n.s.	887±8	873±7	n.s.
Total contents (mg)	2.12±0.02	2.02±0.01	<0.005	2.35±0.03	2.21±0.03	<0.005
Trabecular contents (mg)	0.40±0.01	0.41±0.01	n.s.	0.22±0.01	0.24±0.01	n.s.
Cortical contents (mg)	1.72±0.02	1.61±0.01	<0.005	2.13±0.03	1.98±0.03	<0.005
Total area (mm^2)	3.44±0.04	3.48±0.04	n.s.	3.17±0.04	3.2-±0.03	n.s.
Trabecular area (mm^2)	1.35±0.03	1.49±0.03	<0.005	0.76±0.03	0.93±0.03	<0.005
Cortical area (mm^2)	2.10±0.03	1.99±0.02	<0.05	2.41±0.05	2.26±0.04	<0.05

The pQCT data from 16-weeks-old mice were presented as mean ± standard error of mean. Statistical analysis was
performed by unpaired Student's *t* test.

Supplementary Table 2. Nuclear Magnetic Resonance (NMR) analysis of *Plcg2$^{Ali14/+}$* mice

Sex	Genotype (n)	Body mass (g)	*P*-value	Fat mass (g)	*P*-value	Lean mass (g)	*P*-value
Male	*wild type* (10)	34.8±1.8	–	8.4±1.4	–	21.6±0.7	–
	Plcg2$^{Ali14/+}$ (10)	30.9±2.1	<0.001	6.5±0.8	<0.005	19.6±1.3	<0.001
Female	*wild type* (10)	30.4±2.6	–	8.5±1.6	–	17.7±1.1	–
	Plcg2$^{Ali14/+}$ (10)	30.8±3.6	n.s.	8.8±2.3	n.s.	18.6±1.6	n.s.

Fat and lean mass were compared using a linear model including body mass as covariate.

Supplementary Table 3. Sperm quality measuremnets using sperm analyzer

Strain	Number of males	Motility (%)	P-value	Progressivity (%)	P-value
wild type	20	69.0±15.2	-	36.7±12.0	-
Plcg2^{Ali14/+}	12	77.4±10.4	0.16 (n.s.)	43.5±7.8	0.12 (n.s.)

Wilcoxon rank-sum test was used for statistical significance. Mean±SEM is shown.