Supplementary Information Titles

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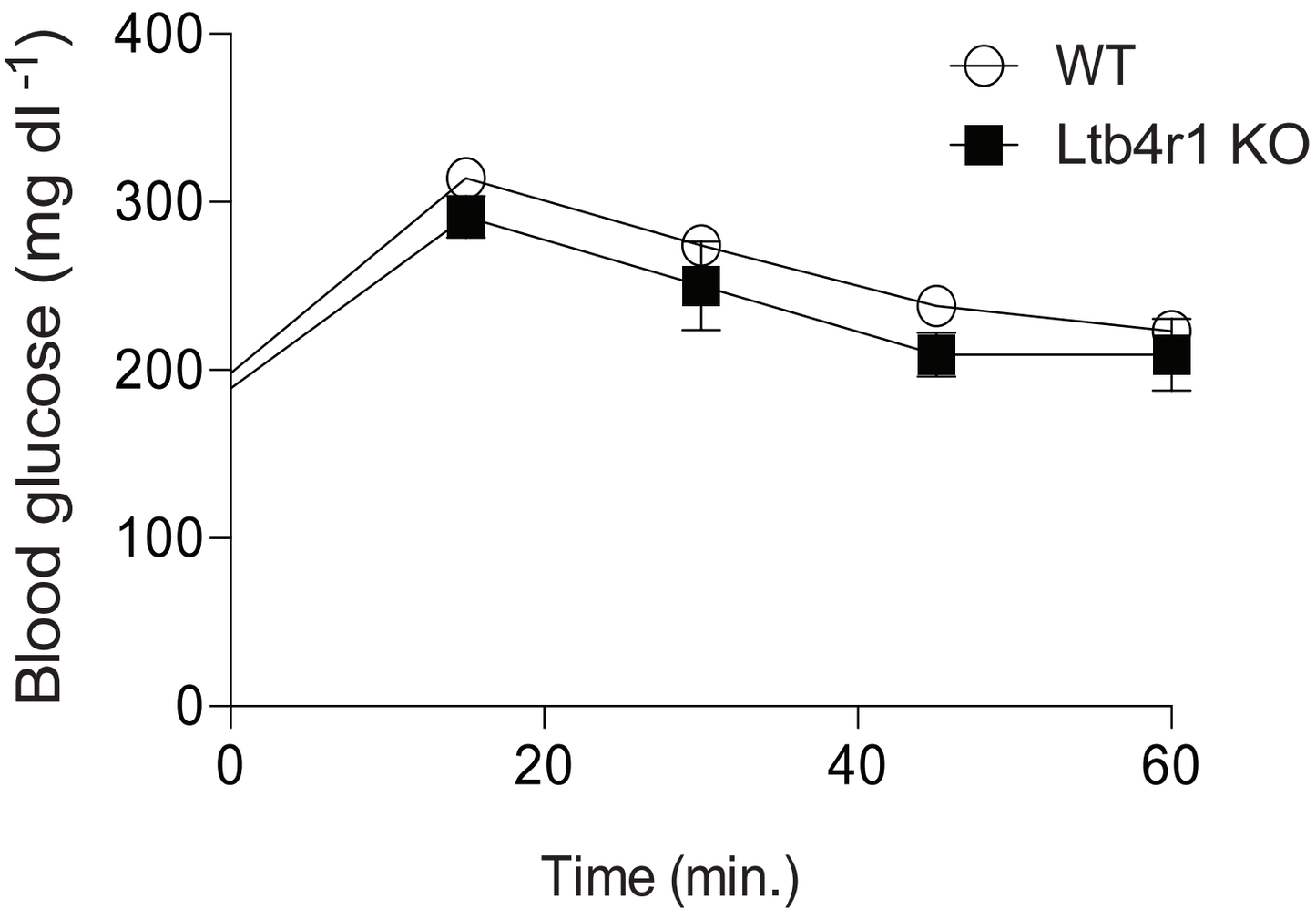
Journal: Nature Medicine

Article Title:	LTB4 causes macrophage–mediated inflammation and directly induces insulin resistance in obesity
Corresponding Author:	Jerrold M. Olefsky

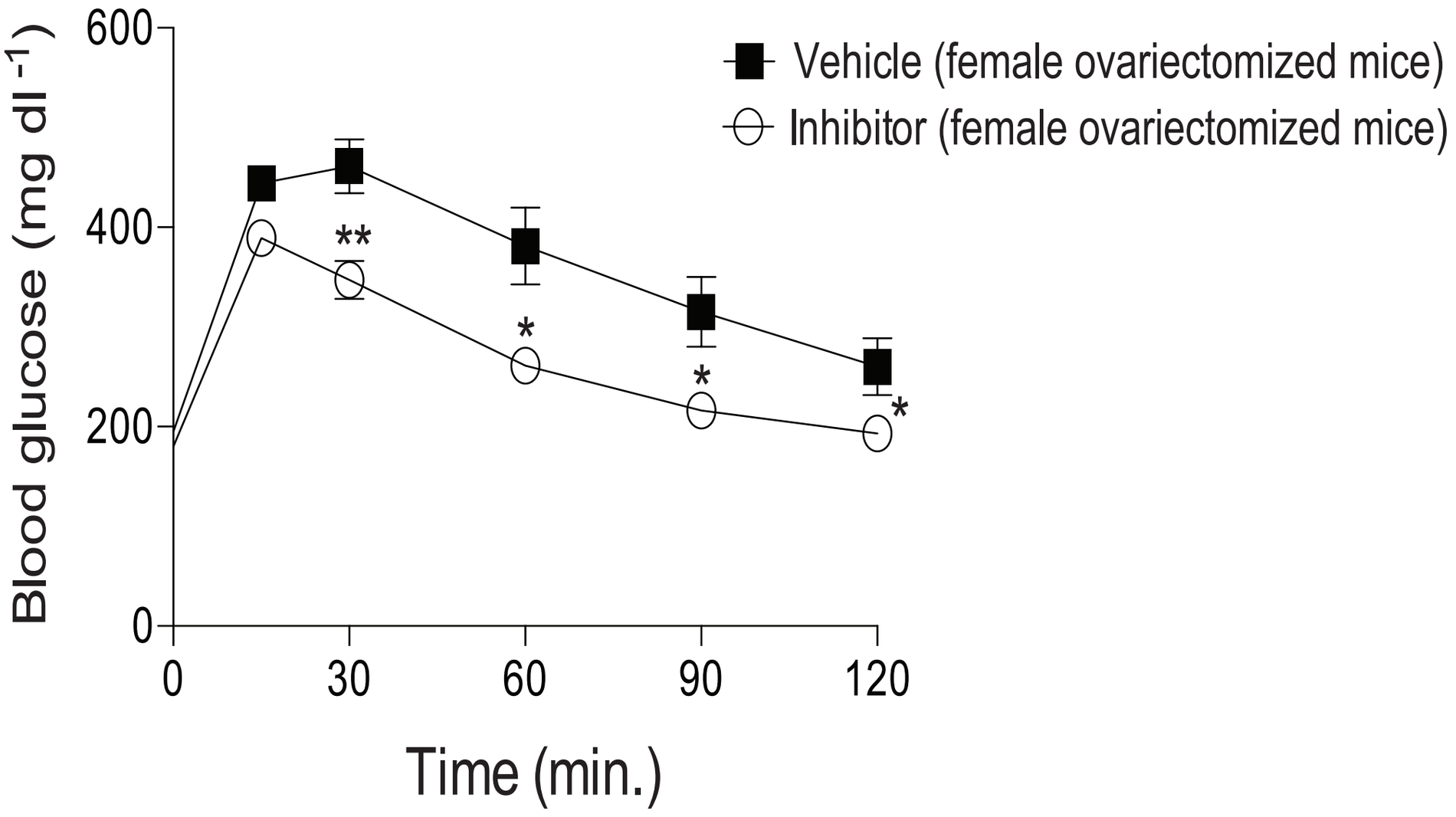
Supplementary Item & Number **(add rows as necessary)**	**Title or Caption**
Supplementary Figure 1	GTT in WT and Ltb4r1 KO mice fed chow.
Supplementary Figure 2	GTT of HFD female ovariectomized (OVX) mice treated with vehicle or Ltb4r1 inhibitor.
Supplementary Figure 3	Effect of Ltb4r1 inhibitor treatment on viability of RAW cells.
Supplementary Figure 4	Fluorescence minus one (FMO) for the FACS analysis. Epididymal fat pads were dissected and separated into adipocyte and SVC populations.
Supplementary Figure 5	Effect of Ltb4r1 inhibitor treatment (2 weeks) in adipose tissue.
Supplementary Figure 6	Effect of pertussis toxin (PT) pretreatment on p-Akt in (**a**) L6 myocytes and (**b**) hepatocytes
Supplementary Figure 7	Effect of Jnk inhibitor treatment on glucose uptake and p-Akt in L6 cells
Supplementary Figure 8	(**a**) Effect of Ltb4r1 inhibitor on LTB4 induced hepatic glucose production in primary hepatocytes. (**b**) Effect of LTB4 on glucose uptake in 3T3L1 differentiated adipocyte.

Supplementary Fig.1　Li



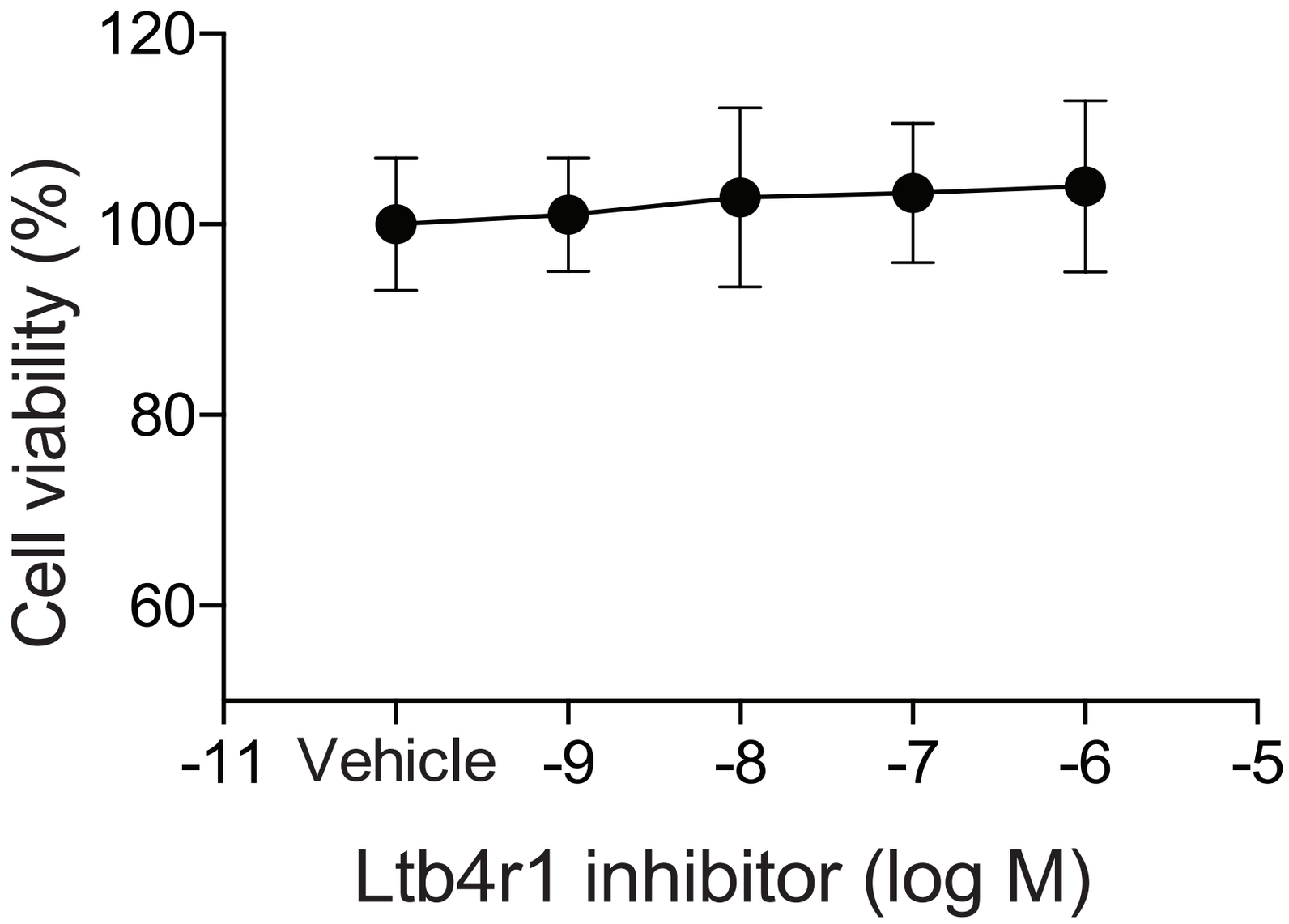
Supplementary Fig.1 GTT in WT and Ltb4r1 KO mice fed chow. Data were analyzed by two-way ANOVA followed by Bonferroni post tests. Values are expressed as mean ± s.e.m. n=8.

Supplementary Fig.2　Li



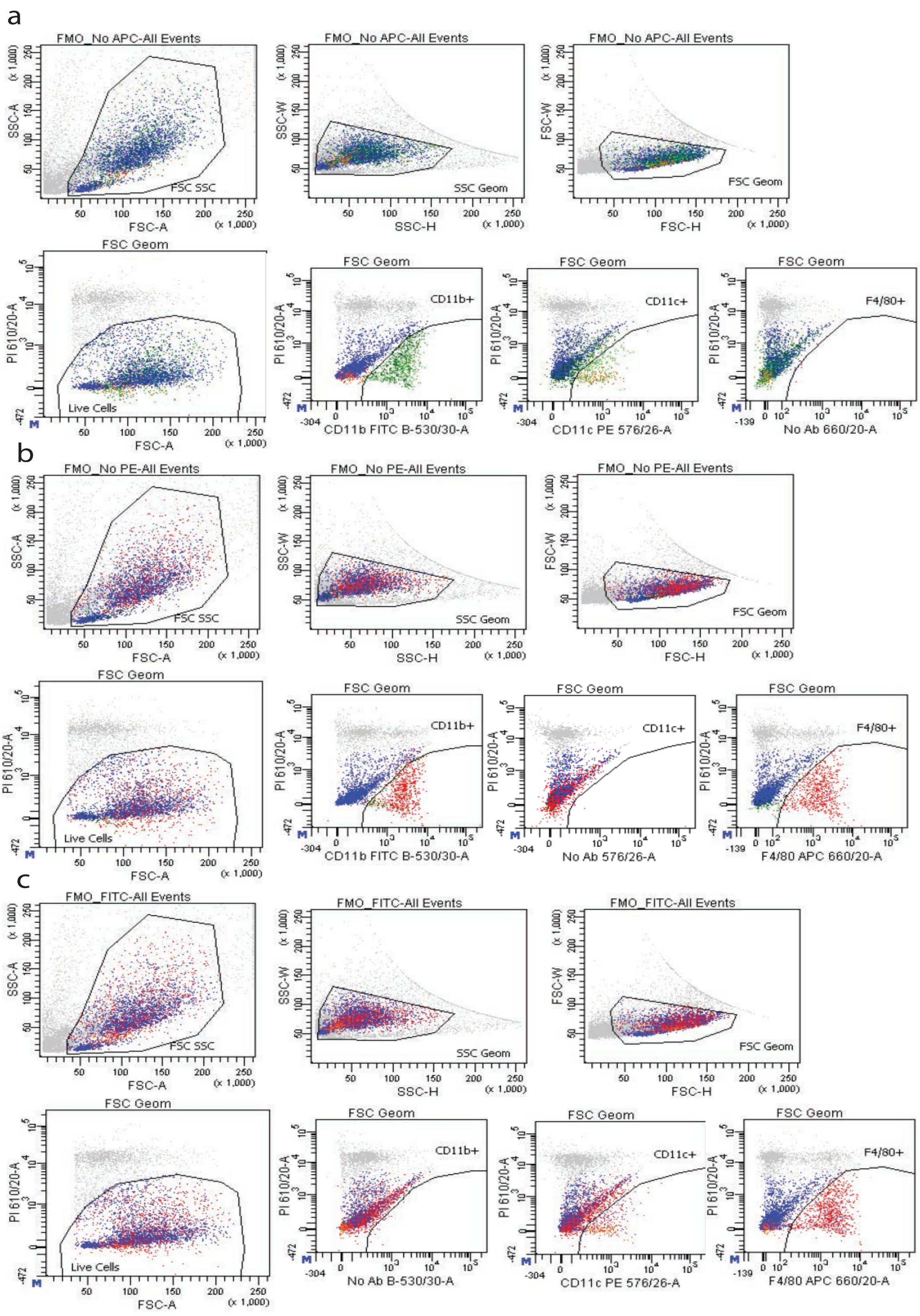
Supplementary Fig. 2 GTT of HFD female ovariectomized (OVX) mice treated with vehicle or Ltb4r1 inhibitor. Data were analyzed by two-way ANOVA followed by Bonferroni post tests. Values are expressed as mean ± s.e.m. n=10. * P<0.05, ** P<0.01 for vehicle versus treatment.

Supplementary Fig.3　Li



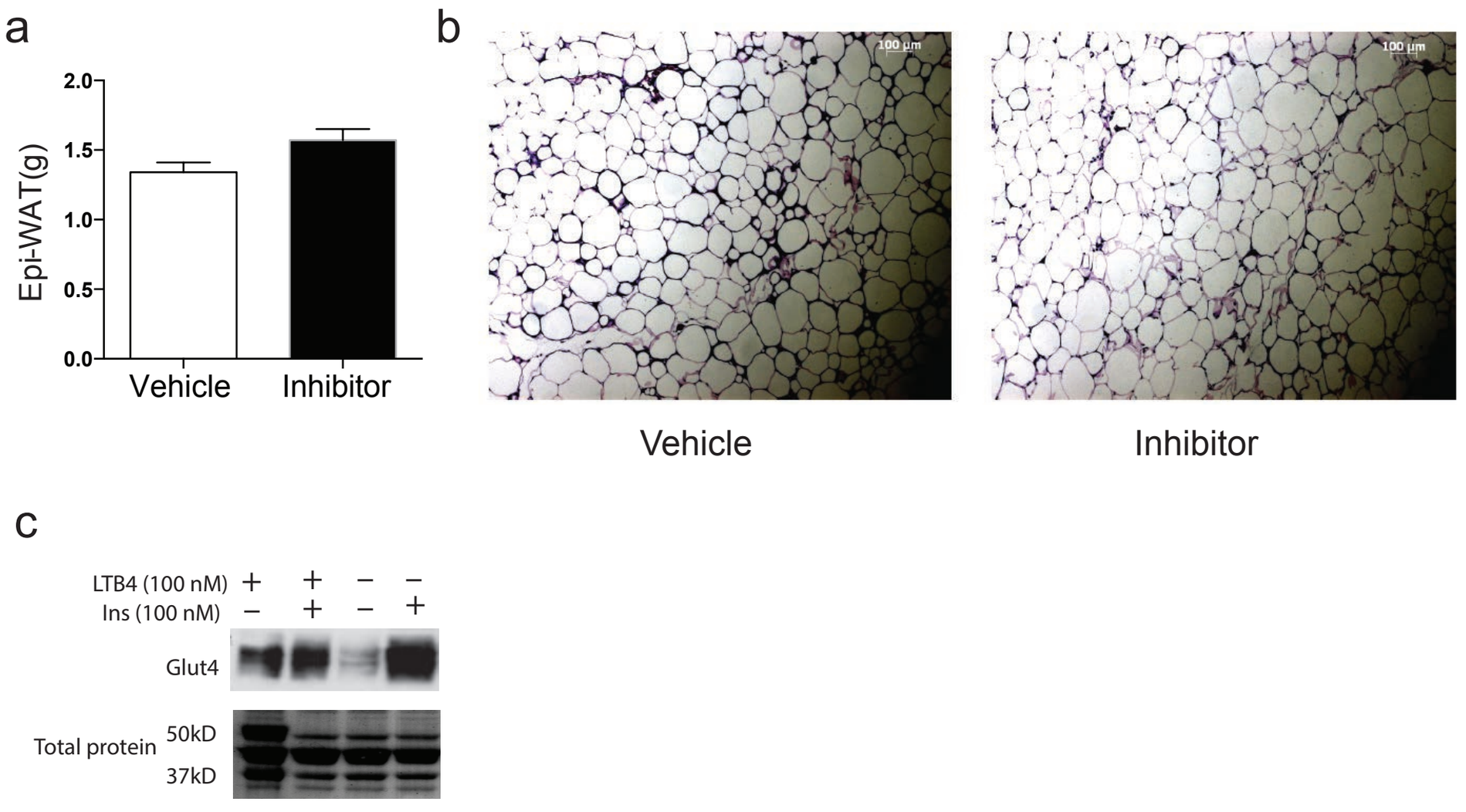
Supplementary Fig. 3 Effect of Ltb4r1 inhibitor treatment on viability of RAW cells. Data were analyzed by two-way ANOVA followed by Bonferroni post tests. Values are expressed as mean ± s.e.m. n=6.

Supplementary Fig.4 Li



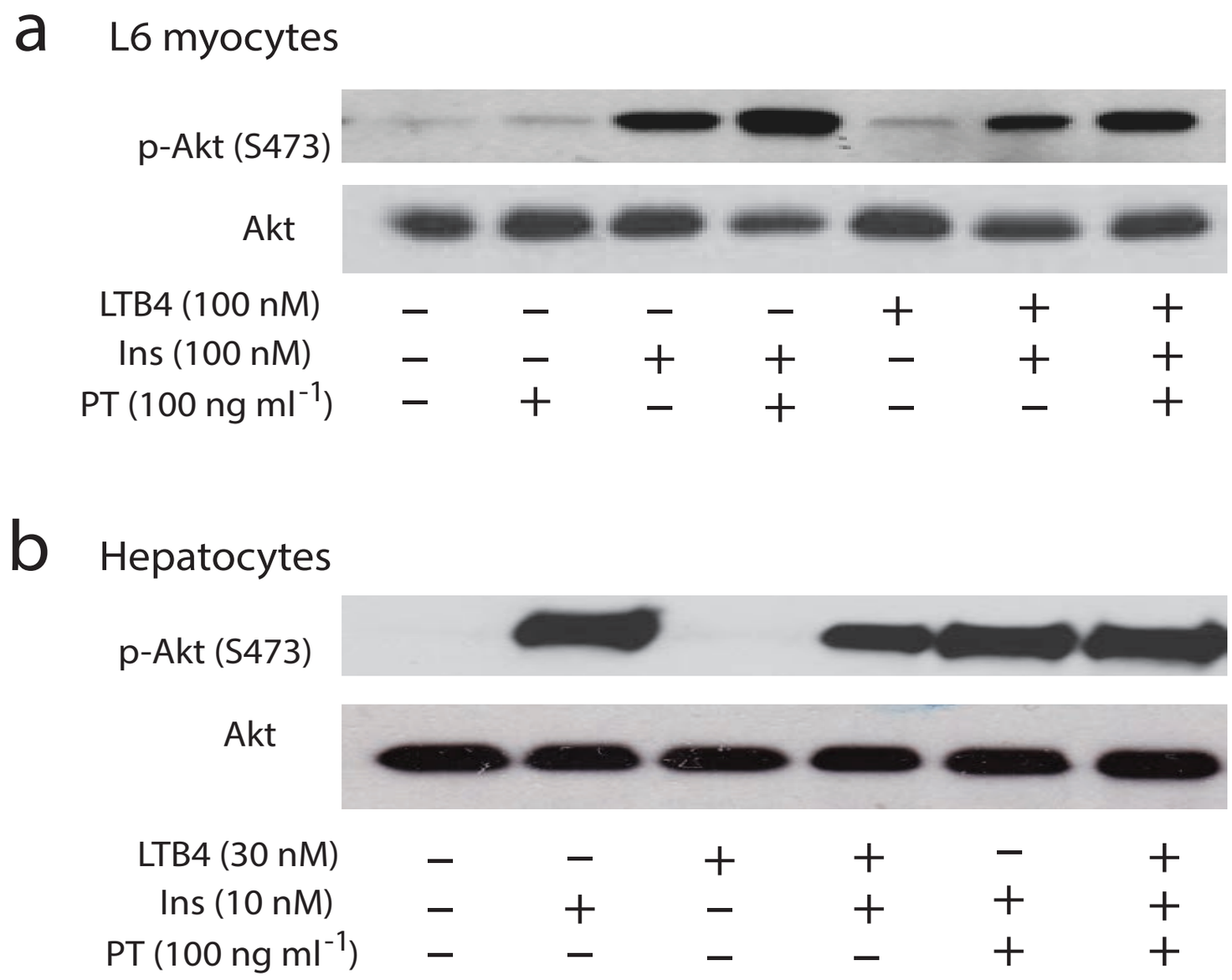
Supplementary Fig. 4 Fluorescence minus one (FMO) for the FACS analysis. Epididymal fat pads were dissected and separated into adipocyte and SVC populations. Stromal vascular cells (SVCs) were stained with antibody with F4/80-APC, CD11b-FITC, CD11c-PE or PI. (**a**) SVCs were stained with CD11b-FITC, CD11c-PE, and PI. (**b**) SVCs were stained with F4/80-APC, CD11b-FITC and PI. (**c**) SVCs were stained with F4/80-APC, CD11c-PE and PI.

Supplementary Fig.5　Li



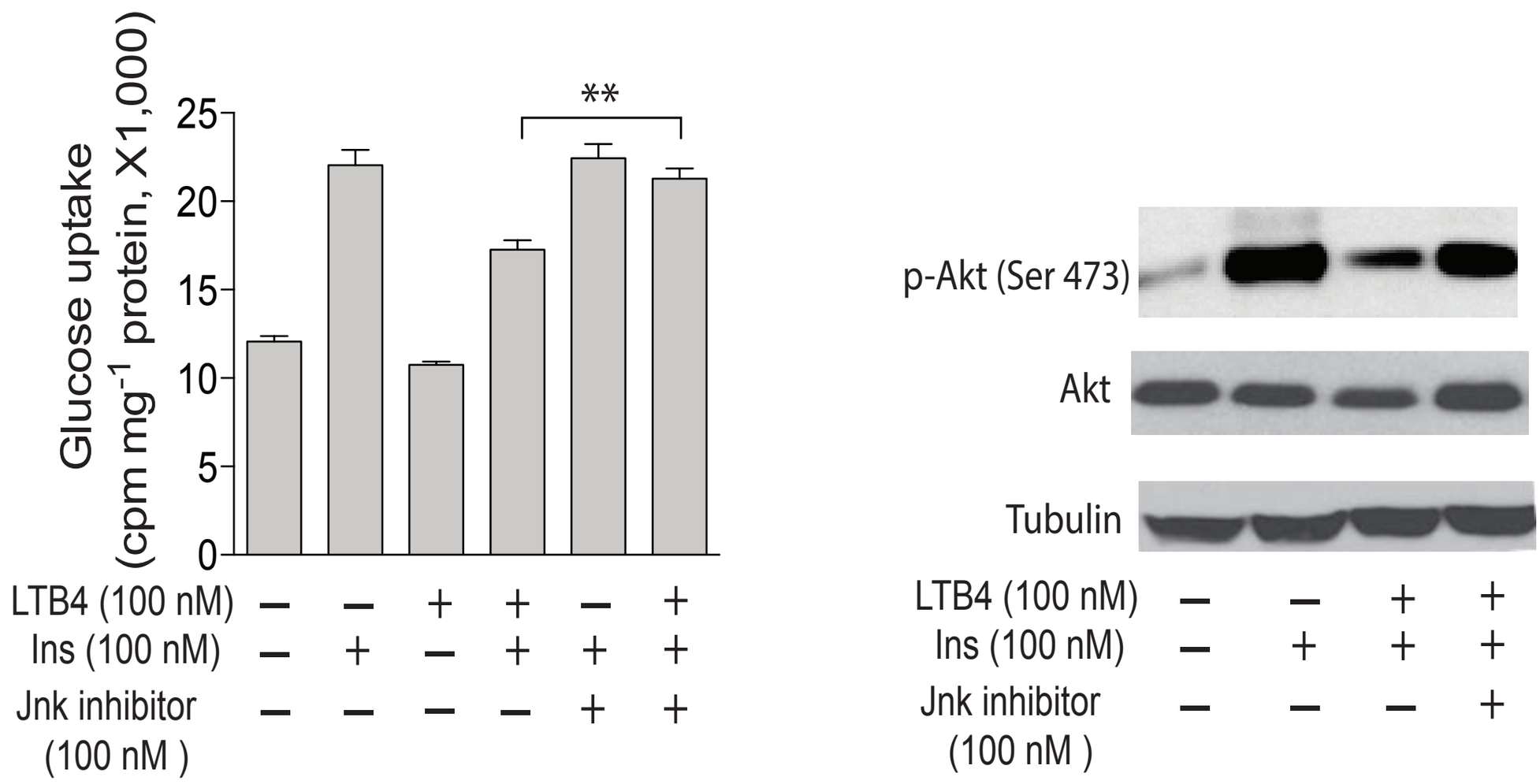
Supplementary Fig. 5 Effect of Ltb4r1 inhibitor treatment (2 weeks) in adipose tissue. (**a**) Epi-WAT mass. (**b**) HE staining of Epi-WAT. (**c**) Effect of LTB4 on insulin induced Glut4 translocation to the plasma membrane in L6 cells. Data were analyzed by two-way ANOVA followed by Bonferroni post tests. Values are expressed as mean ± SEM. n=6 in a-b. Western blot data are represented of more than 3 independent experiments.

Supplementary Fig.6 Li



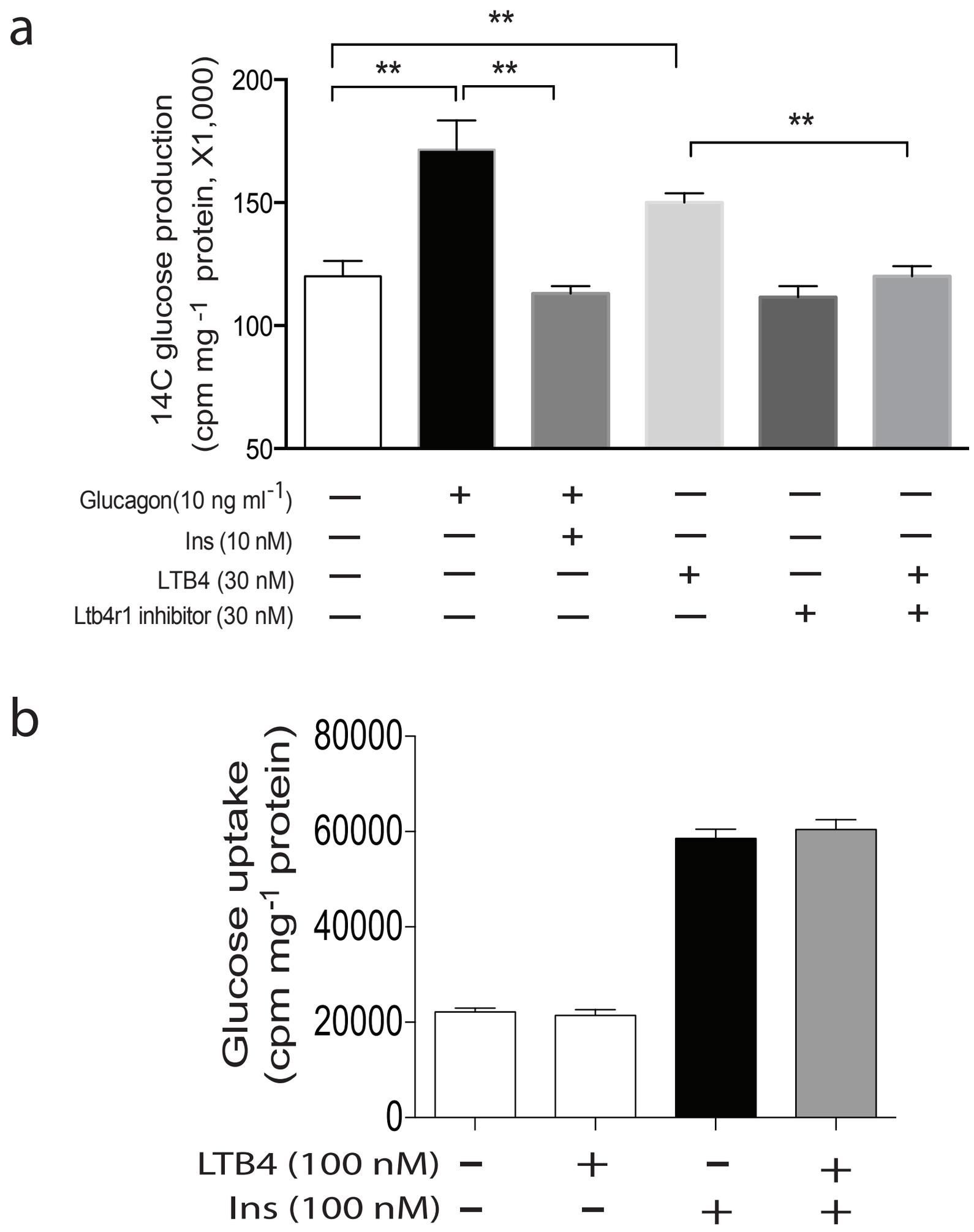
Supplementary Fig. 6 Effect of pertussis toxin (PT) pretreatment on p-Akt in (a) L6 myocytes and (b) hepatocytes. Western blot data are represented of more than 3 independent experiments.

Supplementary Fig.7　Li



Supplementary Fig. 7 Effect of Jnk inhibitor treatment on glucose uptake and p-Akt in L6 cells. Data were analyzed by two-way ANOVA followed by Bonferroni post tests. Values are expressed as mean ± s.e.m. n=6. Western blot data are represented of more than 3 independent experiments.

Supplementary Fig.8 Li



Supplementary Fig. 8 (**a**) Effect of Ltb4r1 inhibitor on LTB4 induced hepatic glucose production in primary hepatocytes. (**b**). Effect of LTB4 on glucose uptake in 3T3L1 differentiated adipocyte. Data were analyzed by two-way ANOVA followed by Bonferroni post tests. Values are expressed as mean ± s.e.m. n=6. ** P<0.01.