Fig. S8

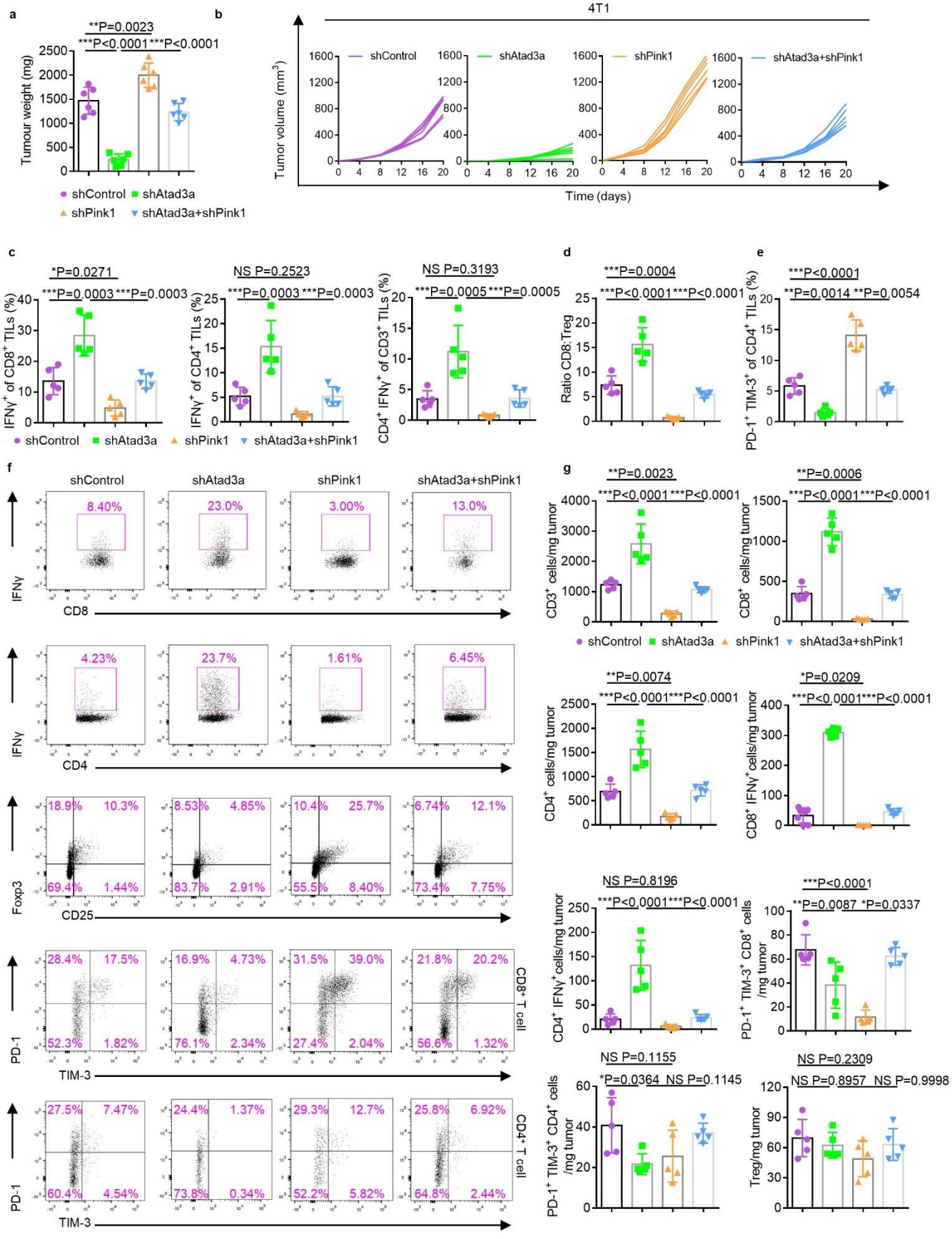
a
**P=0.0023
P<0.0001P<0.0001
Tumour weight (mg)
shControl shAtad3a
shPink1 shAtad3a+shPink1
b
4T1
shControl
shAtad3a
shPink1
shAtad3a+shPink1
Tumor volume (mm3)
Time (days)
c
*P=0.0271
P=0.0003P=0.0003
NS P=0.2523
P=0.0003P=0.0003
NS P=0.3193
P=0.0005P=0.0005
IFNγ+ of CD8+ TILs (%)
IFNγ+ of CD4+ TILs (%)
CD4+ IFNγ+ of CD3+ TILs (%)
d
***P=0.0004
P<0.0001P<0.0001
Ratio CD8:Treg
e
***P<0.0001
**P=0.0014 **P=0.0054
PD-1+ TIM-3+ of CD4+ TILs (%)
f
shControl
shAtad3a
shPink1
shAtad3a+shPink1
8.40%
23.0%
3.00%
13.0%
IFNγ
CD8
4.23%
23.7%
1.61%
6.45%
IFNγ
CD4
18.9% 10.3% 69.4% 1.44%
8.53% 4.85% 83.7% 2.91%
10.4% 25.7% 55.5% 8.40%
6.74% 12.1% 73.4% 7.75%
Foxp3
CD25
28.4% 17.5% 52.3% 1.82%
16.9% 4.73% 76.1% 2.34%
31.5% 39.0% 27.4% 2.04%
21.8% 20.2% 56.6% 1.32%
CD8+ T cell
PD-1
TIM-3
27.5% 7.47% 60.4% 4.54%
24.4% 1.37% 73.8% 0.34%
29.3% 12.7% 52.2% 5.82%
25.8% 6.92% 64.8% 2.44%
CD4+ T cell
PD-1
TIM-3
g
**P=0.0023
P<0.0001P<0.0001
CD3+ cells/mg tumor
**P=0.0006
P<0.0001P<0.0001
CD8+ cells/mg tumor
shControl shAtad3a shPink1 shAtad3a+shPink1
**P=0.0074
P<0.0001P<0.0001
CD4+ cells/mg tumor
*P=0.0209
P<0.0001P<0.0001
CD8+ IFNγ+cells/mg tumor
NS P=0.8196
P<0.0001P<0.0001
CD4+ IFNγ+cells/mg tumor
***P<0.0001
**P=0.0087 *P=0.0337
PD-1+ TIM-3+ CD8+ cells /mg tumor
NS P=0.1155
*P=0.0364 NS P=0.1145
PD-1+ TIM-3+ CD4+ cells /mg tumor
NS P=0.2309
NS P=0.8957 NS P=0.9998
Treg/mg tumor

Fig. S8 ATAD3A-PINK1 mitophagy axis participates in regulating T-cell anti-tumor immune response in vivo.

a–**d** BALB/c mice were inoculated orthotopically with 4T1 cells with control, Atad3a-knockdown, Pink1-knockdown or Atad3a and Pink1 double knockdown. **a** The weight of 4T1 tumors (*n* = 6, one-way ANOVA). **b** The growth curves of 4T1 tumors. **c** Quantification of the percentages of tumor-infiltrating $IFN\gamma^+CD8^+$ T cells and $IFN\gamma^+CD4^+$ T cells by flow cytometry (*n* = 5, one-way ANOVA). **d** Ratio of $CD8^+$ cytotoxic T lymphocytes (CTLs) to $CD4^+CD25^+Foxp3^+$ T_{reg} cells (*n* = 5, one-way ANOVA). **e** Quantification of the percentage of $PD\text{-}1^+TIM\text{-}3^+CD4^+$ T cells by flow cytometry (*n* = 5, one-way ANOVA). **f** Flow cytometry of tumor-infiltrating $IFN\gamma^+CD8^+$, $IFN\gamma^+CD4^+$, $CD4^+CD25^+Foxp3^+$, $PD\text{-}1^+TIM\text{-}3^+CD8^+$ and $PD\text{-}1^+TIM\text{-}3^+CD4^+$ T cells in tumors formed by control, Atad3a-knockdown, Pink1-knockdown or Atad3a and Pink1 double knockdown cells. **g** Quantification of the numbers of tumor-infiltrating $CD3^+$, $CD8^+$, $CD4^+$, $IFN\gamma^+CD8^+$, $IFN\gamma^+CD4^+$, $PD\text{-}1^+TIM\text{-}3^+CD8^+$, $PD\text{-}1^+TIM\text{-}3^+CD4^+$ T cells and $CD4^+CD25^+Foxp3^+$ T_{reg} cells per milligram of tumor tissue by flow cytometry (*n* = 5, one-way ANOVA). Data are representative of two independent experiments and are shown as means ± SD.