Supplementary information

Title of the manuscript: TET2 inhibits tumorigenesis of breast cancer cells by regulating caspase-4

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Figure legends

Supplementary figure S1. TET2 overexpression attenuates anchorage-independent growth of MDA-MB-231 cell
(a) Western blot analysis shows protein level of ectopically overexpressed Flag-TET2 in stable MDA-MB-231 (mock, Flag-TET2) cell lines, laminB1 as loading control. (b) Colony formation assay of stable MDA-MB-231 cells expressing empty vector (Mock) or TET2 (Flag-TET2). This assay was performed in 12-well plate, after 4 weeks, the cell colonies were harvested and stained. Then, the colony number was counted. (c) Statistical analysis of colony number shown in figure S1b. All data are presented as mean ± SD from three biological replicates. **p < 0.01.

Supplementary figure S2. TET2 knockout has no effect on CASP3 expression
RT-qPCR analysis shows mRNA levels of CASP3 in stable MDA-MB-231 (mock, Flag-TET2) cell lines.
Supplementary figure 1

(a) Immunoblot showing expression of Flag and LaminB1 in MDA-MB-231 cells transfected with Mock or Flag-TET2.

(b) Colony formation assay showing colonies from Mock and Flag-TET2 transfected MDA-MB-231 cells.

(c) Bar graph showing number of colonies formed by Mock and Flag-TET2 transfected MDA-MB-231 cells, with a significant difference indicated by **.
Supplementary figure 2

Fold change

|       | Mock | Flag-TET2 |
|-------|------|-----------|
| CASP3 |      |           |

MDA-MB-231
Legend:
Areas of the gel shown in Figure 1a are marked in red.
The membranes were probed with anti-TET2 and anti-LaminB1 antibodies.
Full length gels for Figure 2b

**Legend:**
Areas of the gel shown in Figure 2b are marked in red.
The membranes were probed with anti-Caspase-4 and anti-LaminB1 antibodies.
Full length gels for Figure 2c

Legend:
Areas of the gel shown in Figure 2c are marked in red.
The membranes were probed with anti-TET2, anti-Flag and anti-LaminB1 antibodies.
Full length gels for Figure 2d

Legend:
Areas of the gel shown in Figure 2d are marked in red.
The membranes were probed with anti-TET2, anti-Flag and anti-LaminB1 antibodies.
Full length gels for Figure 4a

Legend:
Areas of the gel shown in Figure 4a are marked in red.
The membranes were probed with anti-Caspase-4 and anti-LaminB1 antibodies.
Full length gels for Supplementary Figure 1a

Legend:
Areas of the gel shown in Figure S1a are marked in red.
The membranes were probed with anti-Caspase-4 and anti-LaminB1 antibodies.