

# Supplementary Materials

**Table S1.** The gene sequence of the DLM.

|                                                                                 |                                                                     |
|---------------------------------------------------------------------------------|---------------------------------------------------------------------|
| Glu Ala Gly                                                                     | Glu Glu Cys Asp Cys Asp Ser Pro Ala Asn Pro Cys Cys Asp Ala Ala Thr |
| 5                                                                               | 10 15 20                                                            |
| Cys Lys Leu Arg Pro Gly Ala Gln Cys Ala Glu Gly Leu Cys Cys Glu Gln Cys Arg Phe |                                                                     |
| 25                                                                              | 30 35 40                                                            |
| Met Lys Glu Gly Thr Val Cys Arg Ile Ala Arg Gly Asp Asp Met Asp Asp Tyr Cys Asn |                                                                     |
| 45                                                                              | 50 55 60                                                            |
| Gly Ile Ser Ala Gly Cys Pro Arg Asn Pro Phe His Ala Gly Gly Gly Cys Gly Gly     |                                                                     |
| 65                                                                              | 70 75 80                                                            |
| Gly Gly Cys Gly Gly Gly Cys Arg Val Gly Ile Gly Ala Val Leu Lys Val Leu Thr     |                                                                     |
| 85                                                                              | 90 95 100                                                           |
| Thr Gly Leu Pro Ala Leu Ile Ser Trp Ile Lys Arg Lys Arg Gln Gln                 |                                                                     |
| 105                                                                             | 110 115                                                             |

**Table S2.** Inhibition of serial dilutions DLM to MCF-7 cells. The IC<sub>50</sub> of DLM to SMMC-7721 is 0.720μM. The IC<sub>50</sub> of DLM to MCF-7 is 0.438 μM. The IC<sub>50</sub> of DLM to BT549 is 0.516 μM. The IC<sub>50</sub> of DLM to MDA-MB-231 is 0.565 μM. The IC<sub>50</sub> of DLM to SKOV-3 is 0.352 μM. The DLM shows low cytotoxicity to the MCF-10A, L-02 and HEK-293 cells. (a) Inhibition of serial dilutions DLM to SMMC-7721 cells; (b) Inhibition of serial dilutions DLM to MCF-7 cells; (c) Inhibition of serial dilutions DLM to BT549 cells; (d) Inhibition of serial dilutions DLM to MDA-MB-231 cells; (e) Inhibition of serial dilutions DLM to SKOV-3 cells; (f) Inhibition of serial dilutions DLM to MCF-10A cells; (g) Inhibition of serial dilutions DLM to L-02 cells; (h) Inhibition of serial dilutions DLM to HEK-293 cells.

| Concentration (μg/mL) | OD <sub>490</sub> | Survival Rate (%) |
|-----------------------|-------------------|-------------------|
| 0                     | 0.8595 ± 0.0044   | —                 |
| 0.082                 | 0.7670 ± 0.0057 # | 89.24 ± 0.50      |
| 0.164                 | 0.7210 ± 0.0032 # | 83.89 ± 0.33      |
| 0.328                 | 0.6450 ± 0.0008 # | 75.05 ± 0.43      |
| 0.656                 | 0.4470 ± 0.0047 # | 47.99 ± 0.49      |
| 1.313                 | 0.2730 ± 0.0043 # | 31.76 ± 0.36      |
| 2.626                 | 0.1720 ± 0.0036 # | 20.01 ± 0.46      |
| (a)                   |                   |                   |
| Concentration (μg/mL) | OD <sub>490</sub> | Survival Rate (%) |
| 0                     | 0.7620 ± 0.0128   | —                 |
| 0.041                 | 0.7000 ± 0.0042 # | 91.88 ± 1.53      |
| 0.082                 | 0.6850 ± 0.0047 # | 89.92 ± 1.92      |
| 0.164                 | 0.6018 ± 0.0089 # | 79.98 ± 0.89      |
| 0.328                 | 0.4326 ± 0.0100 # | 56.70 ± 1.28      |
| 0.656                 | 0.3058 ± 0.0050 # | 40.14 ± 0.63      |
| 1.313                 | 0.1498 ± 0.0059 # | 19.65 ± 0.65      |
| (b)                   |                   |                   |

**Table S1. Cont.**

| Concentration ( $\mu\text{g/mL}$ ) | OD <sub>490</sub>                | Survival Rate (%) |
|------------------------------------|----------------------------------|-------------------|
| 0                                  | $0.9731 \pm 0.0043$              | —                 |
| 0.041                              | $0.9044 \pm 0.0083$ <sup>#</sup> | $92.94 \pm 0.69$  |
| 0.082                              | $0.8313 \pm 0.0115$ <sup>#</sup> | $85.43 \pm 1.24$  |
| 0.164                              | $0.7842 \pm 0.0189$ <sup>#</sup> | $80.59 \pm 0.89$  |
| 0.328                              | $0.6172 \pm 0.0142$ <sup>#</sup> | $63.43 \pm 1.43$  |
| 0.656                              | $0.4597 \pm 0.0238$ <sup>#</sup> | $47.24 \pm 0.97$  |
| 1.313                              | $0.2265 \pm 0.0082$ <sup>#</sup> | $23.28 \pm 0.82$  |

(c)

| Concentration ( $\mu\text{g/mL}$ ) | OD <sub>490</sub>                | Survival Rate (%) |
|------------------------------------|----------------------------------|-------------------|
| 0                                  | $1.2553 \pm 0.0152$              | —                 |
| 0.041                              | $1.1681 \pm 0.0291$ <sup>#</sup> | $93.05 \pm 0.32$  |
| 0.082                              | $1.0567 \pm 0.0202$ <sup>#</sup> | $84.18 \pm 0.91$  |
| 0.164                              | $0.9963 \pm 0.0342$ <sup>#</sup> | $79.37 \pm 0.56$  |
| 0.328                              | $0.8688 \pm 0.0323$ <sup>#</sup> | $69.21 \pm 1.01$  |
| 0.656                              | $0.6165 \pm 0.0717$ <sup>#</sup> | $45.11 \pm 0.75$  |
| 1.313                              | $0.3470 \pm 0.0136$ <sup>#</sup> | $27.64 \pm 0.93$  |

(d)

| Concentration ( $\mu\text{g/mL}$ ) | OD <sub>490</sub>                | Survival Rate (%) |
|------------------------------------|----------------------------------|-------------------|
| 0                                  | $0.6553 \pm 0.0045$              | —                 |
| 0.041                              | $0.5653 \pm 0.0044$ <sup>#</sup> | $86.27 \pm 1.15$  |
| 0.082                              | $0.5300 \pm 0.0018$ <sup>#</sup> | $80.89 \pm 0.73$  |
| 0.164                              | $0.5102 \pm 0.0090$ <sup>#</sup> | $77.87 \pm 1.86$  |
| 0.328                              | $0.4260 \pm 0.0050$ <sup>#</sup> | $65.02 \pm 1.06$  |
| 0.656                              | $0.2680 \pm 0.0028$ <sup>#</sup> | $40.90 \pm 0.61$  |
| 1.313                              | $0.0700 \pm 0.0082$ <sup>#</sup> | $10.68 \pm 1.21$  |

(e)

| Concentration ( $\mu\text{g/mL}$ ) | OD <sub>490</sub>                 | Survival Rate (%) |
|------------------------------------|-----------------------------------|-------------------|
| 0                                  | $0.8367 \pm 0.0035$               | —                 |
| 0.082                              | $0.7856 \pm 0.0042$ <sup>#</sup>  | $93.89 \pm 0.28$  |
| 0.164                              | $0.7776 \pm 0.0035$ <sup>#</sup>  | $92.94 \pm 0.41$  |
| 0.328                              | $0.7621 \pm 0.0059$ <sup>#</sup>  | $91.08 \pm 0.36$  |
| 0.656                              | $0.74140 \pm 0.0030$ <sup>#</sup> | $88.61 \pm 0.45$  |
| 1.313                              | $0.7183 \pm 0.0042$ <sup>#</sup>  | $85.85 \pm 0.38$  |
| 2.626                              | $0.6963 \pm 0.0059$ <sup>#</sup>  | $83.22 \pm 0.31$  |

(f)

| Concentration ( $\mu\text{g/mL}$ ) | OD <sub>490</sub>                | Survival Rate (%) |
|------------------------------------|----------------------------------|-------------------|
| 0                                  | $1.1767 \pm 0.0353$              | —                 |
| 0.082                              | $1.1382 \pm 0.0167$ <sup>#</sup> | $96.73 \pm 0.65$  |
| 0.164                              | $1.1215 \pm 0.0332$ <sup>#</sup> | $95.31 \pm 0.71$  |
| 0.328                              | $1.0987 \pm 0.0476$ <sup>#</sup> | $93.37 \pm 0.69$  |
| 0.656                              | $1.0862 \pm 0.0892$ <sup>#</sup> | $92.31 \pm 0.85$  |
| 1.313                              | $1.0642 \pm 0.0754$ <sup>#</sup> | $90.44 \pm 1.04$  |
| 2.626                              | $1.0453 \pm 0.0435$ <sup>#</sup> | $88.83 \pm 1.24$  |

(g)

**Table S1. Cont.**

| Concentration ( $\mu\text{g/mL}$ ) | OD <sub>490</sub>                 | Survival Rate (%) |
|------------------------------------|-----------------------------------|-------------------|
| 0                                  | $0.8367 \pm 0.0035$               | —                 |
| 0.082                              | $0.7856 \pm 0.0042$ <sup>#</sup>  | $93.89 \pm 0.28$  |
| 0.164                              | $0.7776 \pm 0.0035$ <sup>#</sup>  | $92.94 \pm 0.41$  |
| 0.328                              | $0.7621 \pm 0.0059$ <sup>#</sup>  | $91.08 \pm 0.36$  |
| 0.656                              | $0.74140 \pm 0.0030$ <sup>#</sup> | $88.61 \pm 0.45$  |
| 1.313                              | $0.7183 \pm 0.0042$ <sup>#</sup>  | $85.85 \pm 0.38$  |
| 2.626                              | $0.6963 \pm 0.0059$ <sup>#</sup>  | $83.22 \pm 0.31$  |

(h)

<sup>#</sup> Compared with the control group,  $p < 0.001$ .