**Supplementary Table S1.** Characteristics of LO and FO used in the experiments on animal models.

| Composition                                | Used for the PLs model | Used for the LLC model |
|--------------------------------------------|------------------------|------------------------|
|                                            | LO                     | LO                     | FO         |
| Fatty acids (g/100 g):                     |                        |                        |            |
| C14:0 myristic                             | ND                     | ND                     | 4.63 ± 0.20|
| C16:0 palmitic                             | 5.64 ± 0.19            | 4.68 ± 0.19            | 12.20 ± 0.43|
| C16:1 (n-7) palmitoleic                    | ND                     | ND                     | 9.27 ± 0.33|
| C18:0 stearic                              | 4.72 ± 0.22            | 5.52 ± 0.18            | 1.60 ± 0.04|
| C18:1 (n-9) oleic                          | 16.25 ± 0.72           | 20.76 ± 0.63           | 23.71 ± 0.74|
| C18:2 (n-6) linoleic                       | 16.47 ± 0.73           | 17.03 ± 0.70           | ND         |
| C18:3 (n-3) linolenic                      | 55.92 ± 2.90           | 51.82 ± 2.77           | 2.21 ± 0.08|
| C18:4 (n-3) stearidonic                    |                        | 0.10 ± 0.01            |            |
| C20:0 arachidic                            |                        | 0.21 ± 0.01            |            |
| C20:1 (n-9) eicosenoic                     |                        | 13.21 ± 0.56           |            |
| C20:5 (n-3) eicosapentaenoic               |                        | 7.80 ± 0.29            |            |
| C22:1 (n-11) cetoleic                      |                        | 10.43 ± 0.42           |            |
| C22:6 (n-3) docosahexaenoic                |                        | 9.86 ± 0.38            |            |
| Other                                      | 0.80 ± 0.05            | 0.45 ± 0.01            | 2.67 ± 0.12|
| n-3 PUFAs, total                           | 55.92 ± 2.90           | 51.82 ± 2.77           | 19.97 ± 0.76|
| PUFAs, total                               | 72.39 ± 4.88           | 68.85 ± 4.55           | 19.97 ± 0.76|
| Tocopherols, total (mg/100 g)              | 57.11 ± 2.71           | 50.13 ± 2.40           | –          |
| Vitamin A (IU/g)                           | –                      | –                      | 8.0        |
| Carotenoids, total (mg/100 g)              | 3.04 ± 0.16            | 2.67 ± 0.13            | –          |
| Coenzymes Q10 and Q9, total (mg/100 g)    | 6.25 ± 0.51            | 4.53 ± 0.37            | –          |
| Vitamin D3 (IU/g)                          | –                      | –                      | < 10       |
| Phytosterols, total (mg/100 g)             | 574.74 ± 20.22         | 524.40 ± 19.58         | –          |
| PV (meq O₂/kg)                             | 0.75 ± 0.04            | 1.22 ± 0.07            | 0.82 ± 0.04|
| AV (mg KOH/g)                              | 0.60 ± 0.03            | 0.90 ± 0.04            | 0.12 ± 0.01|
| p-AnV                                      | 0.47 ± 0.02            | 0.45 ± 0.02            | NA         |
| IV (g I₂/100 g)                            | 192.5 ± 9.2            | 184.7 ± 9.8            | 160 ± 4.2  |

Abbreviations: ND = not detected, defined as ≤ 0.05%; NA = not applicable or not available; IU = international unit; PV = peroxide value; AV = acid value; p-AnV = para-anisidine value; IV = iodine value; meq = milligram-equivalent. The results are expressed as the mean ± SD (n = 3).
Supplementary Table S2. Matrix of intergroup comparisons by the Tukey test of PLS tumor volume samples 11 days from the start of treatment. The values of \( p \leq 0.05 \) are highlighted in bold, which indicate significant intergroup differences.

| Treatment groups | Tukey HSD test; Approximate Probabilities for Post Hoc Tests |
|------------------|---------------------------------------------------------------|
|                  | Control  | Dox     | LO 1    | LO 3    | LO 10   | Dox+ LO 1 | Dox+ LO 3   | Dox+ LO 10 |
| Control          | < 0.001  | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001   | < 0.001     | < 0.001     |
| Dox              | < 0.001  | 0.753   | 0.993   | 0.993   | 0.999   | \textbf{0.013} | 0.789       |            |
| LO 1             | < 0.001  | 0.753   | 0.993   | 0.393   | 0.549   | 0.876     | 1.000       |            |
| LO 3             | < 0.001  | 0.993   | 0.393   | 1.000   | 1.000   | \textbf{0.005} | 0.425       |            |
| LO 10            | < 0.001  | 0.993   | 0.393   | 1.000   | 1.000   | \textbf{0.005} | 0.425       |            |
| Dox+LO 1         | < 0.001  | 1.000   | 0.549   | 1.000   | 1.000   | \textbf{0.011} | 0.587       |            |
| Dox+LO 3         | < 0.001  | 0.013   | 0.876   | \textbf{0.005} | \textbf{0.005} | \textbf{0.011} |             | 0.815      |
| Dox+LO 10        | < 0.001  | 0.789   | 1.000   | 0.425   | 0.425   | \textbf{0.011} | 0.815       |             |

Supplementary Table S3. Matrix of intergroup comparisons by the Mann-Whitney test of LLC tumor volume 12 days from the start of treatment. The values of \( p \leq 0.05 \) are highlighted in bold, which indicate significant intergroup differences.

| Variable | Mann-Whitney U-test (rank sum test), \( p \)-value |
|----------|--------------------------------------------------|
|          | Control  | LO      | Dox     | Dox+LO  | FO      | Dox+FO   |
| Control  | 0.001    | < 0.001 | < 0.001 | < 0.001 | 0.290   | \textbf{0.001} |
| LO       | \textbf{0.001} | 0.383   | 0.049   | 0.290   | 0.290   | 0.015    |
| Dox      | < 0.001  | 0.383   | 0.366   | 0.895   | 0.117   |          |
| Dox+LO   | < 0.001  | \textbf{0.049} | 0.383   | 0.399   | 0.613   |          |
| FO       | < 0.001  | 0.290   | 0.895   | 0.399   | 0.180   |          |
| Dox+FO   | < 0.001  | \textbf{0.015} | 0.117   | 0.613   | 0.180   |          |

Supplementary Table S4. Data on metastasis in laboratory animals with LLC.

| Variable                | The total number of metastases in the group, units | Frequency of metastasis (FM), \( \% \) | Average number of metastases, units | The degree of lung metastasis | Metastasis inhibition index (MII), \( \% \) |
|------------------------|---------------------------------------------------|----------------------------------------|-------------------------------------|-----------------------------|----------------------------------|
| Control                | 61                                                | 8 out of 10 = 80.0 \( \% \)           | 6.10                                | 1; 1; 1; 1; 1; 1; 1; 1; 2 |                                  |
| LO                     | 4                                                 | 1 out of 10 = 10.0 \( \% \)           | 0.40                                | 1                           | 99.18                            |
| FO                     | 9                                                 | 2 out of 11 = 18.2 \( \% \)           | 0.82                                | 1; 1                         | 96.94                            |
| Dox                    | 10                                                | 3 out of 11 = 27.3 \( \% \)           | 0.91                                | 1; 1; 1                      | 94.91                            |
| Dox+LO                 | 0                                                 | 0 out of 9 = 0.0 \( \% \)             | 0.00                                | ns                          | 100.00                           |
| Dox+FO                 | 0                                                 | 0 out of 11 = 0.0 \( \% \)            | 0.00                                | ns                          | 100.00                           |