

Anti-tumor effect-1

Inhibitory effect of Lactobacilli metabolites on the growth of P388 cells

1) Materials and methods

Tested sample: Lactobacilli metabolites complex II (= Lmc II ; Filtrate liquid through the mixture of the fermented Lactobacilli culture)

Cells: Mouse leukemia cells, P388 cells were subcultured in abdominal cavity of CDF1 mice, and used under the common conditions.

Methods: P388 cells were incubated under the common conditions in the absence and presence of Lmc II at the concentrations of 0.03%, 0.1%, 0.3%, and 1% for 4 days.

2) Results

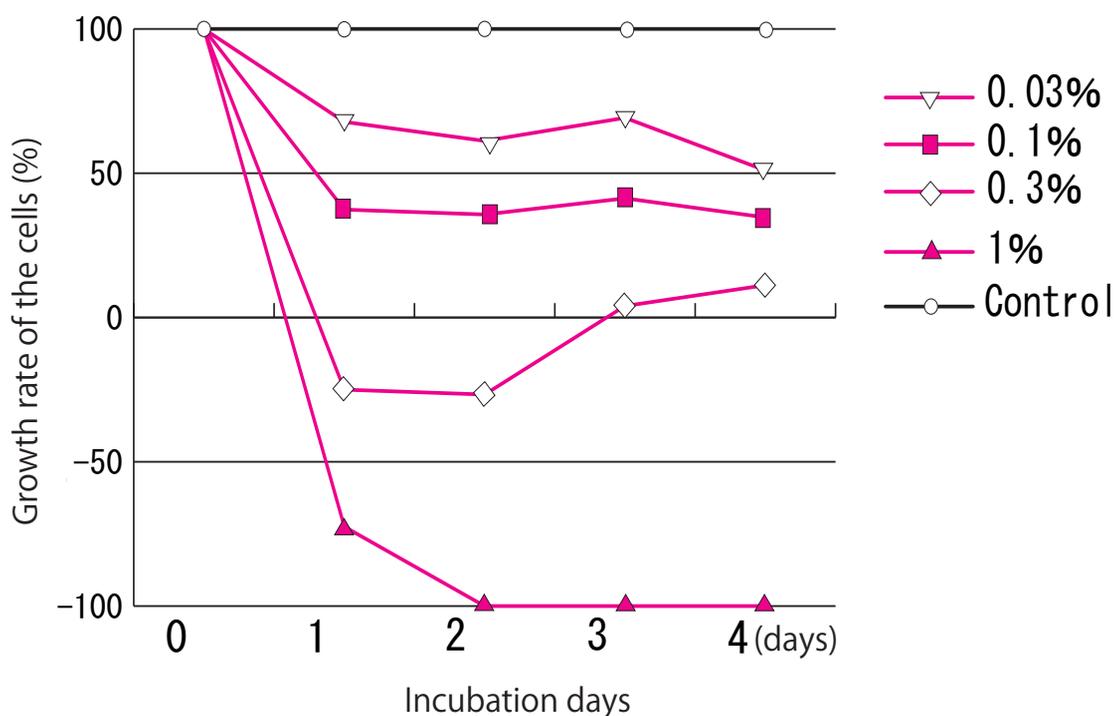
Figure 6 shows the dose-dependent inhibitory effect of Lmc II on the growth of P388 cells. The results show that Lactobacilli metabolites complex may inhibit the growth of P388 cells, mouse leukemia cells, dose-dependently.

3) Conclusion

It is shown that Lactobacilli metabolites may inhibit the growth of 388 cells, mouse leukemia cells, dose-dependently.

4) Organization which performed the test: Tanabe R & D Service Co., Ltd. (Tokyo, Japan)

Changes in the growth of P388 cells in the absence and presence of Lmc II



Anti-tumor effect-2

Life prolongation effect of Lactobacilli metabolites in P388-transplanted mice

1) Materials and methods

Tested sample: Lactobacilli metabolites complex II (= Lmc II ; Filtrate liquid through the mixture of the fermented Lactobacilli culture)

Cells: Mouse leukemia cells, P388 cells were subcultured in abdominal cavity of CDF1 mice, and used under the common conditions.

Methods: The cell suspension of P388 cells at 10⁷ cells/mL (0.1 mL) was injected intraperitoneally into CDF1 mice. Lmc II was administered intraperitoneally at 20 mL/Kg once a day from the next day of the transplantation to death.

2) Results

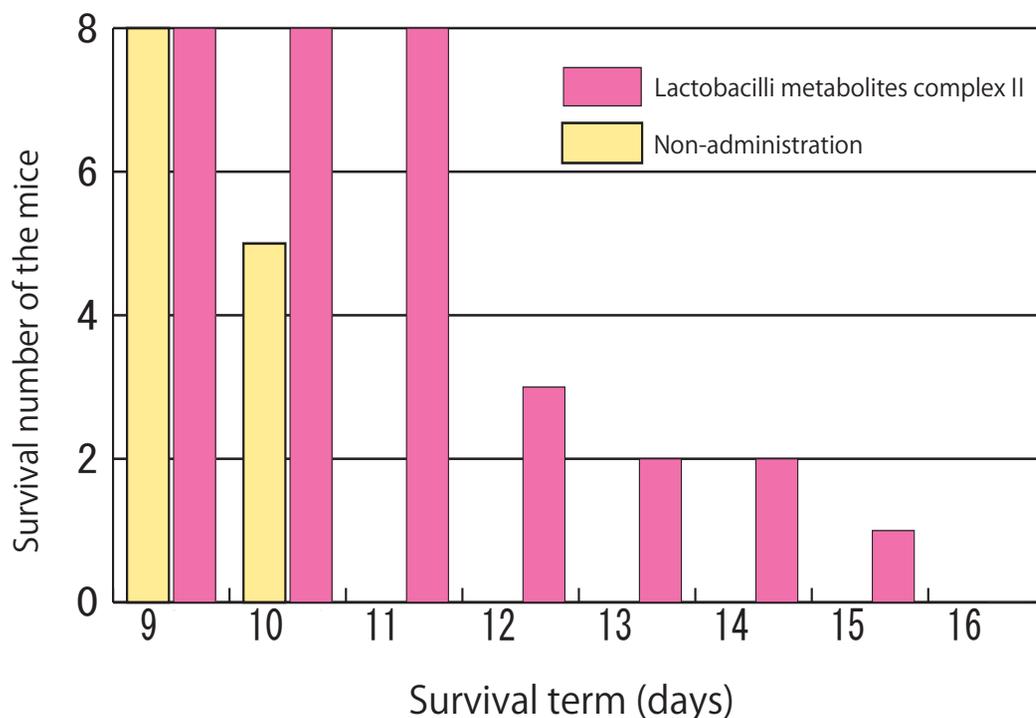
Figure 7 shows the survival number of the P388-transplanted mice and the life prolongation effect of Lmc II in the mice. The results indicate that Lactobacilli metabolites complex may prolong the life of P388-transplanted mice.

3) Conclusion

It is shown that Lactobacilli metabolites may prolong the life of P388-transplanted mice, leukemia mice.

4) Organization which performed the test : Tanabe R & D Service Co., Ltd. (Tokyo, Japan)

Changes in the survival number of the P388-transplanted mice



1) Materials and methods

Tested sample: Lactobacilli metabolites complex I (Original mixture of the fermented Lactobacilli culture)

and II (Filtrate liquid through the mixture of the fermented Lactobacilli culture)

Cells: Human tumor cells (11 cell lines as follows) were used; MKN45 (stomach cancer),

HT-29 (colon cancer), HCT-15 (colon cancer), HCT116 (colon cancer), MIAPaCa2 (pancreas cancer), A549 (lung cancer),

MCF7 (breast cancer), HeLa (uterine cancer), NIH:OVCA3 (ovary cancer), PC-3 (prostate cancer), and K-562 (leukemia).

Methods: The human tumor cells were incubated under the common conditions, in the presence of Lactobacilli metabolites complex I or II at varied concentrations. The potencies of inhibitory effects of Lactobacilli metabolites complex I and II against each tumor cells are calculated as the reciprocals of the minimum diluted concentration to show the inhibitory effect significantly (original concentration = 1).

2) Results

Figures 8 and 9 show the potencies of Lactobacilli metabolites complex I and II to inhibit the tumor cell growth, respectively. The results indicate that Lactobacilli metabolites complex may strongly inhibit the growth of human tumor cells, and the spectrum of the inhibition by Lactobacilli metabolites complex against human tumor cells is different from that of 5-FU (5-fluorouracil) (data not shown).

3) Conclusion

It is demonstrated that Lactobacilli metabolites complex may strongly inhibit the growth of human tumor cells, and the spectrum of the inhibition by Lactobacilli metabolites complex against human tumor cells is different from that of 5-FU (5-fluorouracil) (data not shown).

4) Organization which performed the test : Tanabe R & D Service Co., Ltd. (Tokyo, Japan)

