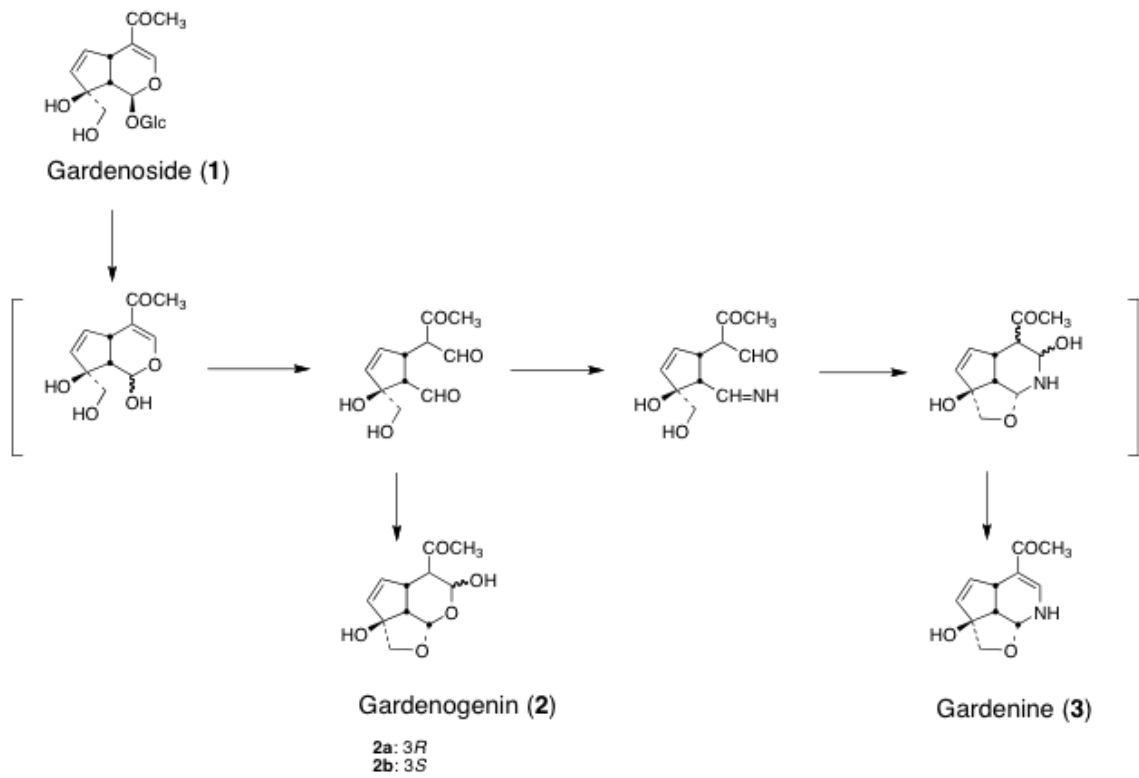
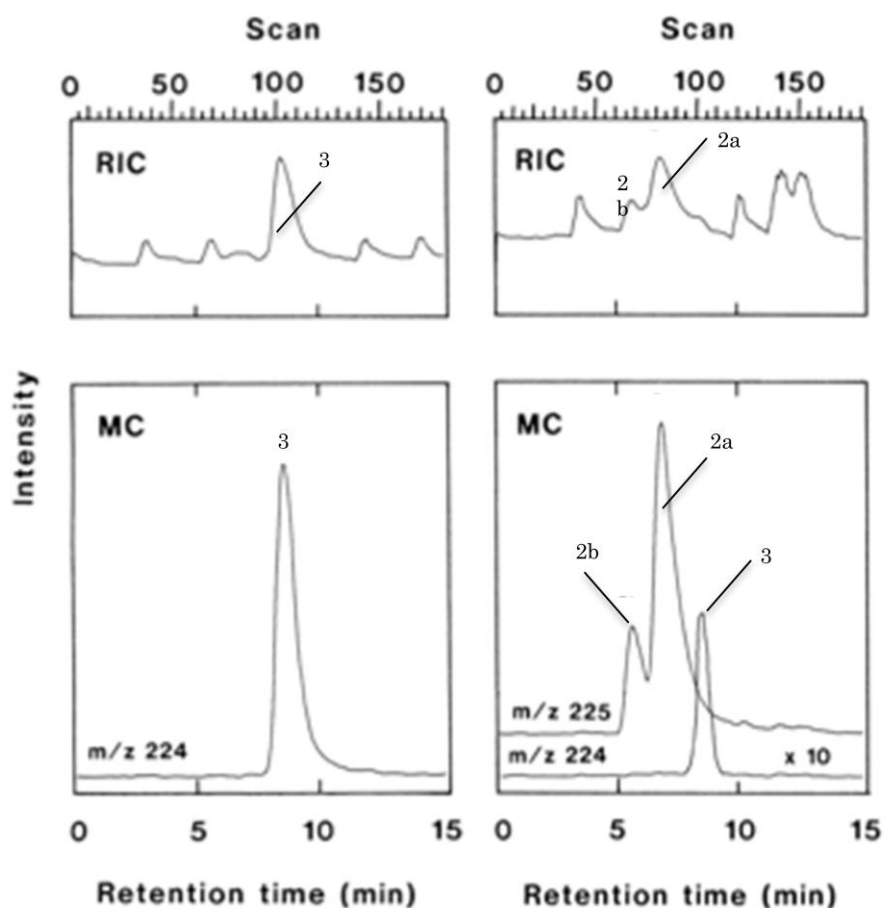


Gardenoside



代謝実験

腸内細菌代謝 ヒト腸内細菌フローラ、ヒト腸内細菌菌種 *Klebsiella pneumoniae*



2a, (3*R*)-gardenogaine; **2b**, (3*S*)-gardenogenin; **3**, gardenine

Fig. 1 RIC and MC of the metabolites produced from gardenoside by *Klebsiella pneumoniae* (right) and of authentic gardenine (left)

The FAB mass spectra of the peaks eluted at 5.4, 6.7, and 8.3 min were as follows: the first peak, m/z 225 ($M^+ - OH + H$, base peak), 193 ($M^+ - OH - OMe$); the second peak, m/z 225 ($M^+ - OH + H$, base peak), 193 ($M^+ - OH - OMe$); the third peak, m/z 224 ($M^+ + H$, base peak), 192 ($M^+ - OMe$). [Kawata et al., *Planta Med.*, **57**, 536-542 (1991)]

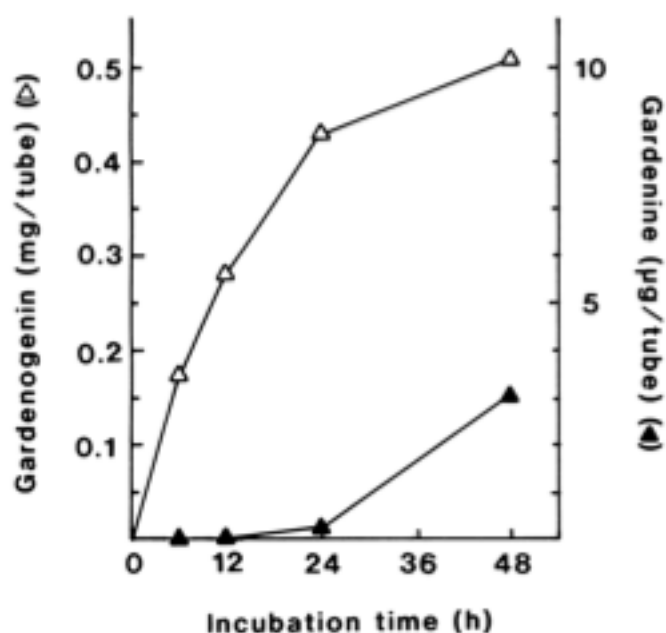


Fig. 2 Time course of the formation of gardenogenins A and B, and gardenine from gardenoside by *Klebsiella pneumoniae*

Tubes containing gardenoside (10 mg) and a suspension of *K. pneumoniae* in 100 mM phosphate buffer, pH 7.3, were anaerobically incubated for indicated periods at 37 °C, and the products were analyzed by LC/MS, monitoring the selected ions at m/z 224.0 (gardenine **3**) and 225.0 (gardenogenins **2a** + **2b**). [Kawata et al., *Planta Med.*, **57**, 536-542 (1991)]

1) Kawata Y., Hattori M., Akao T., Kobashi K. and Namba T.: Formation of nitrogen-containing metabolites from geniposide and gardenoside by human intestinal bacteria. *Planta Med.*, **57**, 536-542 (1991).