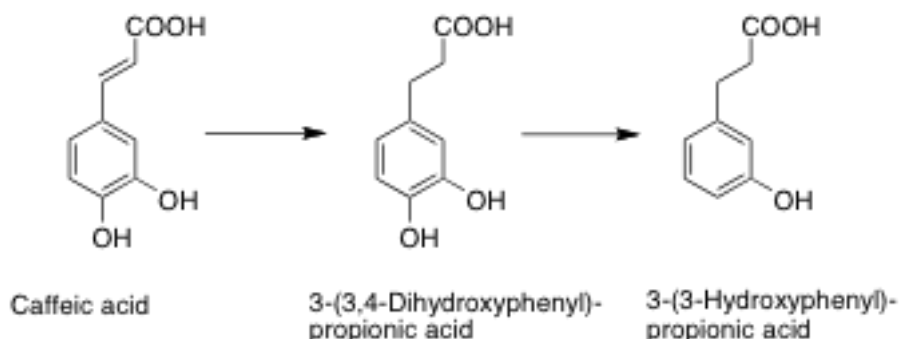


Caffeic acid



代謝実験

腸内細菌代謝 ヒト腸内細菌分離株 *Eubacterium* sp. strain SDG-2

単一化合物 caffeic acid

Incubation of caffeic acid with *Eubacterium* sp. strain SDG-2

Caffeic acid (50 mg in 1 ml MeOH) was anaerobically incubated with a bacterial suspension (100 ml) for 2 d. The reaction mixture was then treated as usual to give 3-(3,4-dihydroxyphenyl)propionic acid (8 mg) and 3-(3-hydroxyphenyl)propionic acid (10 mg). [Wang *et al.*, *Chem. Pharm. Bull.*, **49**, 1640-1643 (2001)]

3-(3,4-Dihydroxyphenyl)propionic acid

Amorphous powder, EI-MS m/z : 182 $[M]^+$. $^1\text{H-NMR}$ (MeOH- d_4) δ : 2.56 (2H, t, $J=7.5$ Hz, H-2), 2.84 (2H, t, $J=7.5$ Hz, H-3), 6.52 (1H, dd, $J=7.7, 2.2$ Hz, H-6'), 6.63 (1H, d, $J=2.2$ Hz, H-2'), 6.72 (1H, d, $J=7.7$ Hz, H-5'). [Wang *et al.*, *Chem. Pharm. Bull.*, **49**, 1640-1643 (2001)]

3-(3-Hydroxyphenyl)propionic acid

Amorphous powder, EI-MS m/z : 166 $[M]^+$. $^1\text{H-NMR}$ (MeOH- d_4) δ : 2.55 (2H, t, $J=7.5$ Hz, H-2), 2.82 (2H, t, $J=7.5$ Hz, H-3), 6.60 (1H, dd, $J=7.7, 2.2$ Hz, H-6'), 6.66 (1H, d, $J=2.2$ Hz, H-2'), 6.67 (1H, br d, $J=7.7$ Hz, H-4'), 7.06 (1H, t, $J=7.7$ Hz, H-5'). $^{13}\text{C-NMR}$ (MeOH- d_4) δ : 31.9 (C-3), 36.6 (C-2), 114.1 (C-4'), 116.1 (C-2'), 120.5 (C-6'), 130.4

(C-5'), 143.6 (C-1'), 158.4 (C-3'), 176.8 (C-1). [Wang *et al.*, *Chem. Pharm. Bull.*, **49**, 1640-1643 (2001)]

参考文献

- 1) Wang L., Meselhy M. R., Li Y., Nakamura N., Min B., Qin G. and Hattori M.: The heterocyclic ring fission and dehydroxylation of catechins and related compounds by *Eubacterium* sp. strain SDG-2, a human intestinal bacterium. *Chem. Pharm. Bull.*, **49**, 1640-1643 (2001).