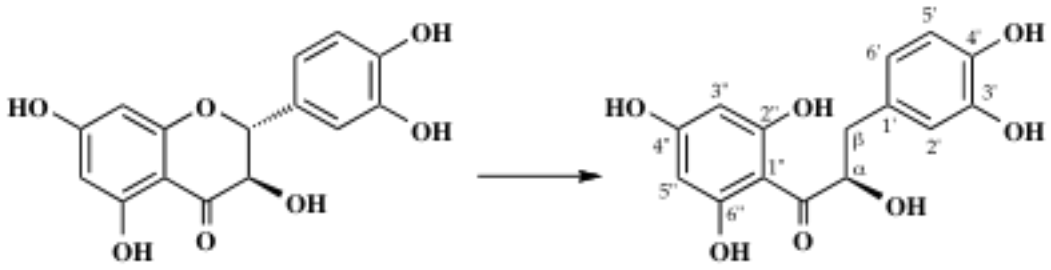
Taxifolin



(+)-(2*R*, 3*R*)-Taxifolin (1) 2

Transformation of taxifolin by a human intestinal bacterium *Eubacterium* sp. strain SDG-2

代謝実験

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

Incubation of (+)-taxifolin with *E*ubacterium sp. strain SDG-2

(+)-Taxifolin (25 mg in 1 ml MeOH) was anaerobically incubated with a bacterial suspension (50 ml) for 3 d. The reaction mixture was then treated as usual to give compound **2** (12 mg). [Wang *et al*., *Chem. Pharm. Bull*., **49**, 1640-1643 (2001)]

Compound 2

Amorphous powder, $[\alpha]_D^{25}$ +5.2° (*c* 0.27, MeOH). EI-MS *m/z* : 306 $[M]^+$. ^{1}H-NMR (MeOH-d_4) δ: 2.79 (1H, dd, *J*=14.6, 7.4 Hz, H_a-β), 3.10 (1H, dd, *J*=14.6, 3.7 Hz, H_b-β), 4.67 (1H, dd, *J*=7.4, 3.7 Hz, H-α), 5.82 (1H, d, *J*=1.4 Hz, H-2′ or H-4′), 5.88 (1H, d, *J*=1.4 Hz, H-4′ or H-2′), 6.56 (1H, dd, *J*=8.1, 2.1 Hz, H-6), 6.63 (1H, d, *J*=8.1 Hz, H-5), 6.70 (1H, d, *J*=2.1 Hz, H-2). ^{13}C-NMR (MeOH-d_4) δ: 38.0 (C-β), 88.0 (C-α), 91.4 (C-3′), 97.5 (C-5′), 104.1 (C-1′), 116.2 (C-5), 117.7 (C-2), 122.0 (C-6), 129.1 (C-1), 145.1 (C-4), 146.0 (C-3), 159.6 (C-4′), 171.3 (C-2′), 176.3 (C-6′), 198.9 (C=O). [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).