REVISED STEREOSTRUCTURES OF LUTEUSINS C AND D

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Absolute configurations at positions 2' and 5' in the two new azaphilones, luteusins C and D, from an Ascomycete, $Talaromyces\ luteus$, have been revised to (R) and (S) from (S) and (R), respectively.

KEY WORDS fungal metabolite; Ascomycete; *Talaromyces luteus*; luteusin; azaphilone

We reported the structures of luteusins C and D isolated from an Ascomycete, *Talaromyces luteus*. In the report, the structures of luteusins C and D ((*Z*)-isomer at position 11 of C) were deduced to be 1a and 2a, respectively. Absolute configurations at positions 8, 2', and 5' in 1a and 2a were deduced as (*S*), (*S*), and (*R*), on the basis of the nuclear Overhauser effects (NOE) between CH₃ attached to C-7 having (*S*) configuration and H-8, between H-8 and H-2', and between H-2' and H-5' of the tetrahydro derivative of luteusin C. I) However, we recently received information from a Kyowa Hakko research group which led us to reexamine the NOE experiment, because no NOE were observed between H-8 and H-2' in their compounds, similar to luteusins C and D, isolated from a microorganism. Our reexamination in a difference NOE experiment on luteusin A instead of the tetrahydro derivative showed no significant NOE between H-8 and H-2', although significant NOEs were observed between CH₃ attached to C-7 and H-8, and between H-2' and H-5'.

Thus, the absolute configurations at positions 2' and 5' in luteusins C and D are believed not to be (S) and (R), but (R) and (S), respectively. Accordingly, the absolute configurations of luteusins C and D should be revised to 1 being (7S,8S,9E,11E,13S,2'R,5'S) and 2 being (7S,8S,9E,11Z,13S,2'R,5'S), respectively.

REFERENCE AND NOTE

- 1) Yoshida E., Fujimoto H., Yamazaki M., Chem. Pharm. Bull., 4 4, 284-287 (1996).
- 2) Private communication from Dr. Y. Uosaki, Kyowa Hakko Kogyo Co., Ltd., Asahi-cho, Machida, Tokyo 194, Japan.

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