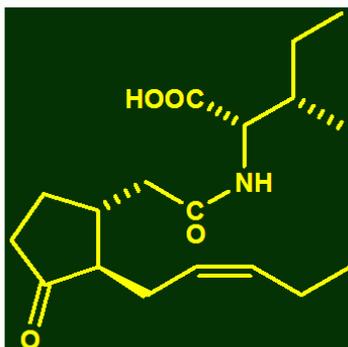


(-)-Jasmonic acid-isoleucine conjugate



An amino acid conjugate of jasmonic acid, *i.e.* *N*-jasmonoylisoleucine (JA-Ile) was obtained from culture media of the fungus *Gibberella fujikuroi* in 1970 (1). JA-Ile and several other JA conjugates were subsequently isolated from plants, and a series of *N*-(jasmonoyl)amino acids was prepared by organic synthesis (2). Interest in JA-amino acid conjugates was stimulated by the finding of an enzyme in *Arabidopsis* which activates JA by conjugating it to isoleucine (3). Recent studies of JA-amino acid conjugates have focussed on so-called COI1 (coronatine-insensitive 1) and JAZ (jasmonate ZIM-domain) proteins and the JA-Ile-promoted interaction between JAZ and COI1 (4-6). The bacterial product coronatine, a molecular mimick of JA-Ile (7), and other chemically prepared analogs of JA-Ile (8) are important tools in this research.

JA-Ile (O-1803-35) synthesized by Lipidox is the coupling product of (-)-JA and (*S*)-Ile obtained following preparative reversed phase HPLC and crystallization from ethyl acetate.

1. Cross, B.E. and Webster, G.R.B. (1970) *J. Chem. Soc. C* 1839-1842.
2. Kramell, R. *et al.* (1988) *Tetrahedron* 44, 5791-5807.
3. Staswick, P.E. and Tiryaki, I. (2004) *The Plant Cell* 16, 2117-2127.
4. Chico, J.M. *et al.* (2008) *Curr. Opin. Plant Biol.* 11, 1-9.
5. Katsir, L. *et al.* (2008) *Curr. Opin. Plant Biol.* 11, 428-435.
6. Staswick, P.E. (2008) *Trends Plant Sci.* 13, 66-71.
7. Weiler, E.W. *et al.* (1994) *FEBS Lett.* 345, 9-13.
8. Krumm, T. *et al.* (1995) *FEBS Lett.* 377, 523-529.