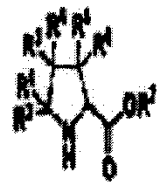
METHOD OF PRODUCING POLYCYCLIC PROLINE DERIVATIVE OR ACID ADDITION SALT THEREOF

ABSTRACT

A process for producing proline derivatives of the formula (1) or acid adduct salts thereof, comprising the step of reacting N-protected pyrrolidinones of the formula (2) with reducing agents to thereby obtain N-protected pyrrolidinols of the formula (3) (step A); the step of reacting the N-protected pyrrolidinols obtained in the step A with cyanating agents to thereby obtain N-protected cyanopyrrolidines of the formula (4) (step B); the step of reacting the N-protected cyanopyrrolidines obtained in the step B with alcohols and bases to thereby obtain imidates of the formula (5) and treating the imidates with acids to thereby obtain N-protected prolines of the formula (6) (step C); and the step of treating the N-protected prolines obtained in the step C with acids (step D). (1)-(6) In the formulae, any two out of R^1, R^2, R^3, R^4, R^5 and R^6 are bonded with each other to thereby form an optionally substituted C_1-C_4 polymethylene; and R^7 is an optionally substituted C_1-C_{10} linear alkyl, etc.



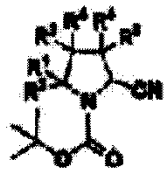
(1)



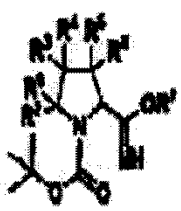
(2)



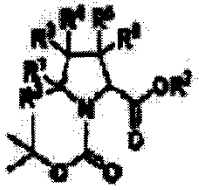
(3)



(4)



(5)



(6)