

Reactions of 5-amino-3-methylisoxazole-4-carboxylic acid hydrazide with carbonyl compounds: immunological activity and QSAR studies of products.

Autorzy

Stanisław Ryng

Michał Zimecki

Adam Fedorowicz

Aneta Jezierska

Rok wydania

2001

Czasopismo

Archiv der Pharmazie.

Pharmaceutical and

Medicinal Chemistry

Numer woluminu

334

Strony

71-78

Kolekcja

Naukowa

Język

Angielski

Typ publikacji

Artykuł

Streszczenie

A series of 4-imino derivatives of the 5-amino-3-methylisoxazole-4-carboxylic acid hydrazide and 5-amino-3-methylisoxazole [5,4-d]-6,7-dihydropyrimidine has been prepared by condensation of 5-amino-3-methylisoxazole-4-carboxylic acid hydrazide with carbonyl compounds. The resulting products were evaluated for their immunological activities in the models of the humoral and cellular immune responses of mice in vivo and concanavalin A (Con A) and lipopolysaccharide (LPS) - induced splenocyte proliferation. In addition, effects on polyclonal antibody production by human peripheral blood cells in culture were investigated. For all studied compounds we carried out quantum chemical calculations at ab initio B3LYP 6-31G(d, p) level. The stimulatory or inhibitory effects depended strongly on the origin and location of substituents, which is described in the conclusions and was supported by QSAR studies.

Słowa kluczowe

Immunological activity, Isoxazole-4-carboxylic acid hydrazide, QSAR

Adres publiczny

[http://dx.doi.org/10.1002/1521-4184\(200103\)334:3<71::AID-ARDP71>3.0.CO;2-I](http://dx.doi.org/10.1002/1521-4184(200103)334:3<71::AID-ARDP71>3.0.CO;2-I)

Strona internetowa wydawcy

onlinelibrary.wiley.com