

## NMR conformational analysis of p-tolyl furanopyrimidine 2'-deoxyribonucleoside and crystal structure of its 3', 5'-di-O-acetyl derivative.

### Autorzy

N. Esho  
J.-P. Desaulniers  
B. Davies  
H. M.-P. Chui  
M. S. Rao  
C. S. Chow  
Sławomir Szafert  
Roman Dembiński

### Rok wydania

2005

### Czasopismo

Bioorganic and Medicinal  
Chemistry

### Numer woluminu

13

### Strony

1231-1238

### DOI

10.1016/j.bmc.2004.11.013

### Kolekcja

Naukowa

### Język

Angielski

### Streszczenie

The conformation of a representative molecule of a new, potent class of antiviral-active modified nucleosides is determined. A bicyclic nucleoside, 3-(2'-deoxy- $\beta$ -d-ribofuranosyl)-6-(4-methylphenyl)-2,3-dihydrofuro[2,3-*d*]pyrimidin-2-one, shows C2'-*endo* and C3'-*endo* ribose conformations in solution (63:37, 37 °C; DMSO-*d*<sub>6</sub>), as determined by <sup>1</sup>H NMR studies. The crystal structure of a 3',5'-di-O-acetyl-protected derivative (monoclinic, *P*2<sub>1</sub>, *a*/*b*/*c* = 6.666(1)/12.225(1)/24.676(2) Å,  $\beta$  = 90.24(1)°, *Z* = 4) shows exclusively C2'-*endo* deoxyribose puckering. The base is found in the *anti* position both in solution and in crystalline form.

### Adres publiczny

<https://doi.org/10.1016/j.bmc.2004.11.013>

### Strona internetowa wydawcy

<http://www.elsevier.com>

## Artykuł

Plik został wygenerowany dnia 2026-10-08 23:39:50

Adres w repozytorium <https://old.chem.uni.wroc.pl/pl/repozytorium/zPnOTD3>.