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MULTIFUNCTIONAL CYCLODEXTRIN-BASED *N,N*-BIDENTATE LIGANDS FOR AQUEOUS HECK ARYLATION

S_NAR REACTIONS OF 2,6-BIS-(1,2,3-TRIAZOLYL)PURINE NUCLEOSIDES WITH HYDRAZINES

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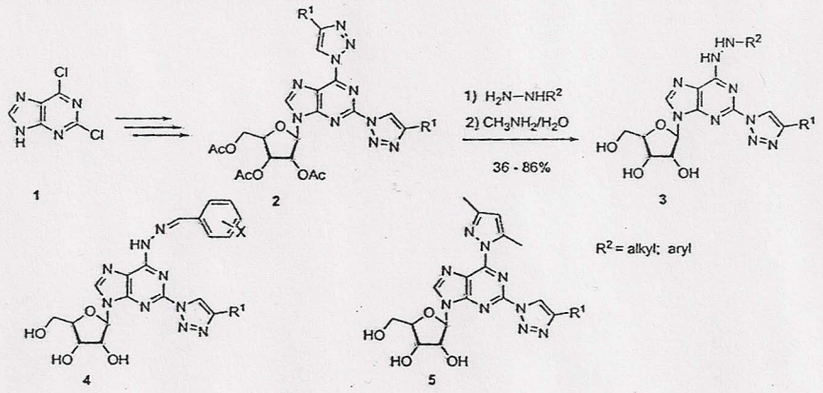
Purine derivatives have found applications as agonists and antagonists of adenosine receptors. In recent years the series of 2-hydrazinyl and 2-pyrazolyl adenosine derivatives were synthesized and investigated as adenosine receptor ligands. Recently, we have reported the synthesis and applications of 2,6-bis-(1,2,3-triazol-1-yl)purine nucleosides **2**. The 1,2,3-triazolyl moiety at C(6) position of purine has been shown as a good leaving group in S_NAr reactions with amines and thiols.[1,2] In this study, we extended the range of nucleophiles with hydrazines. Nucleoside derivatives **2** were prepared by well-established method, starting from commercially available 2,6-dichloropurine **1** in 4 step synthesis including glycosylation and *click* reaction. Intermediate **2** have been exposed to hydrazine hydrate as well as alkyl and arylhydrazines. Reaction times varied from 15 min to 24 h in mild conditions. After deprotection with $MeNH_2/H_2O$ 6-hydrazinyl derivatives **3** were obtained. Further modifications included synthesis of hydrazones **4** and pyrazoles **5**.



1. Kovaļovs, A.; Novosjolova, I.; Bizdēna, Ē.; Bižāne, I.; Skardziute, L.; Kazlauskas, K.; Jursenas, S.; Turks, M. *Tetrahedron Lett.* 2013, 54, 850-853.
2. Novosjolova, I., Bizdēna, Ē., Turks M. *Tetrahedron Lett.* 2013, 54, 6557-6561.