

POSTER PRESENTATIONS

NUCLEOSIDE ANALOGUES WITH INDAZOLE CONTAINING HETEROCYCLIC BASES

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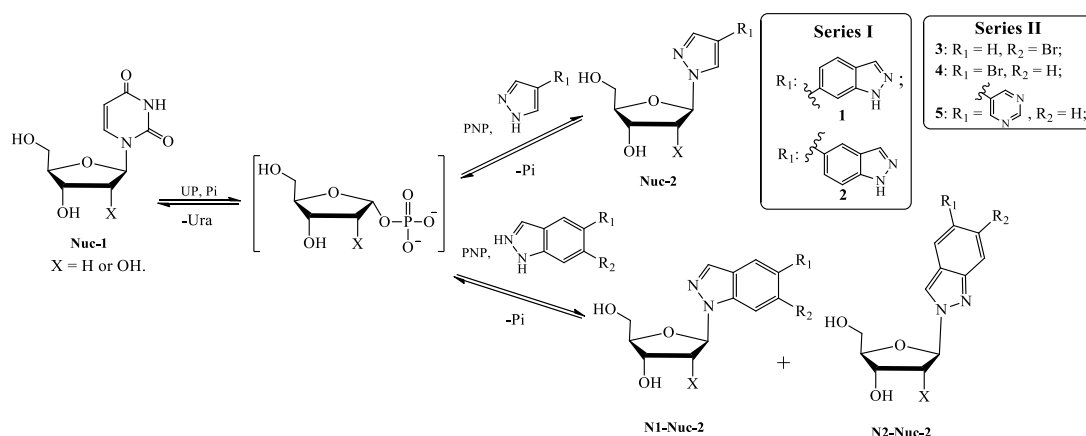
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The enzymatic synthesis of two series of new modified ribo- and 2'-deoxyribonucleosides was carried out. The heterocyclic bases in their structure are represented by an indazole fragment conjugated with various pharmacophore groups - pyrazole, pyrimidine etc.



New nucleosides with natural sugar residues (ribose and 2-deoxyribose) were synthesized via enzymatic transglycosylation using recombinant *E. coli* purine nucleoside phosphorylase. For modified bases (series I), selectivity for glycosylation of the pyrazole moiety over the indazole moiety was noted. The glycosylation reaction of the bases resulted in the formation of a mixture of N1 and N2 regioisomers, which reduced the yields of the target compounds. In all cases, both reaction products were isolated, with the exception of the 2'-deoxyribo-6-bromo-indazole product.

An initial screening of the activity of the synthesized compounds was conducted. For analogues from series I and II, cytotoxic effects on different cell lines were examined. All analogues were tested for antibacterial activity against Gram-positive and Gram-negative bacteria, as well as *M. tuberculosis*. Additionally, the potential of the compounds to inhibit *E. coli* adenosine deaminase was assessed.