

Synthesis of Iso-C-nucleoside Analogues from 1-(Methyl 2-O-benzyl-4,6-O-benzylidene-3-deoxy- α -D-altropyranosid-3-yl)but-3-yn-2-ones

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Z. Naturforsch. **60b**, 1175 – 1185 (2005); received July 7, 2005

Dedicated to Prof. Dr. István Farkas on the occasion of his 80th birthday

1-(Methyl 2-O-benzyl-4,6-O-benzylidene-3-deoxy- α -D-altropyranosid-3-yl)but-3-yn-2-one (**3a**) reacted with 3-amino-1*H*-1,2,4-triazole and 5-aminopyrazole-4-carboxylic acid derivatives in the presence of base to furnish the triazolo[1,5-*a*]pyrimidine (**5**) and the pyrazolo[1,5-*a*]pyrimidines (**8a–d**), respectively. Treatment of 1-(methyl 2-O-benzyl-4,6-O-benzylidene-3-deoxy- α -D-altropyranosid-3-yl)-4-phenyl-but-3-yn-2-one (**3b**) with cyanacetamide, 2-cyano-*N*-(4-methoxyphenyl)acetamide und *N*-aryl-3-oxo-butyramides afforded the substituted nicotinonitriles (**11a–d**). Furthermore, reaction of **3b** with 2-benzimidazolyl-acetonitrile yielded the benz[4,5]imidazo[1,2-*a*]pyridine-4-carbonitrile (**13**). Deprotection of **8d** in two steps afforded the 2-amino-*N*-benzyl-5-(methyl 3-deoxy- α -D-altropyranosid-3-yl-methyl)pyrazolo[1,5-*a*]pyrimidine-3-carboxamide (**10**). Compounds **5** and **11d** were treated with AcOH/H₂O to furnish the 5-(methyl 2-O-benzyl-3-deoxy- α -D-altropyranosid-3-yl-methyl)[1,2,4]triazolo[1,5-*a*]pyrimidine (**6**) and the 3-acetyl-1,2-dihydro-1-(4-methoxyphenyl)-6-(methyl 2-O-benzyl-3-deoxy- α -D-altropyranosid-3-yl-methyl)-4-phenylpyridin-2-one (**12**), respectively.

Key words: C-Nucleoside Analogues, Glycosylalkynone, Pyrazolo[1,5-*a*]pyrimidine, 1,2-Dihydropyridin-2-one, Benz[4,5]imidazo[1,2-*a*]pyridine