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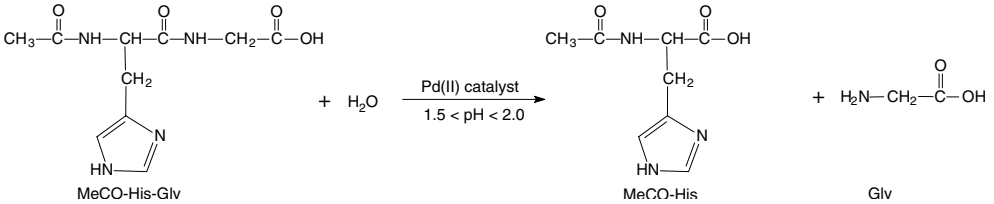
Contents

Synthesis, structure, and hydrolytic reaction of *trans*-dichlorobis(diethanolamine-*N*) palladium(II) with *N*-acetylated *L*-histidylglycine dipeptide pp 225–234

Zorica D. Petrović,* Miloš I. Djuran,* Frank W. Heinemann, Snežana Rajković, Srećko R. Trifunović

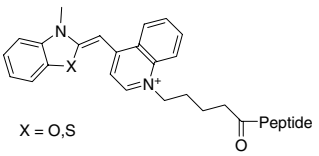


The reaction of $PdCl_2$, or K_2PdCl_4, with diethanolamine (DEA), in the molar ratio 1:2, affords the *trans*-$[PdCl_2(DEA)_2]$ complex. X-ray structure analysis of this complex confirmed the formation of the *trans*-isomer. In the hydrolytic reaction between the *trans*-$[PdCl_2(DEA)_2]$ or the *trans*-$[Pd(H_2O)_2(DEA)_2]^{2+}$ complex and MeCOHis-Gly dipeptide, cleavage of the amide bond involving the carboxylic group of histidine was observed.

DNA sequence-directed assembly of two peptide bioconjugates pp 235–247

M. Thompson*

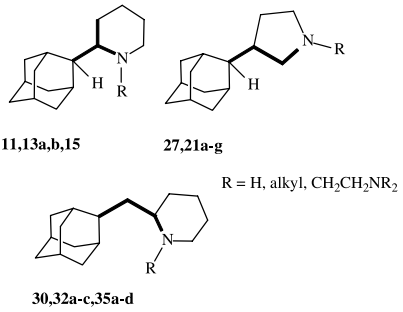
Peptide-intercalator bioconjugates are composed of the polypeptide from a DNA-binding protein and an intercalating fluorescent dye. Here, DNA template-directed assembly of two bioconjugate probes was examined by steady-state fluorescence resonance energy transfer and time-resolved single photon counting.



Synthesis, conformational characteristics and anti-influenza virus A activity of some 2-adamantylsubstituted azacycles pp 248–273

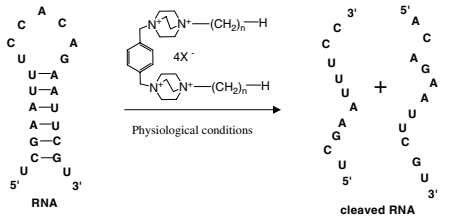
Despina Setaki, Dimitris Tataridis, George Stamatiou, Antonios Kolocouris, George B. Foscolos,* George Fytas,* Nicolas Kolocouris, Elizaveta Padalko, Johan Neyts, Erik De Clercq

Several compounds between 2-(2-adamantyl)piperidines, 3-(2-adamantyl)-pyrrolidines and 2-(2-adamantyl-methyl)piperidines were potent against influenza A H_3N_2 virus. The diamine derivatives **21e–g** and particularly **35a–c** possessing three pharmocophoric groups, the adamantanyl and the two amine groups, exhibited high potency. Parent structures **11** and **27** adopt a fixed *trans* conformation around C2—C2′ bond. The different shape and distance between nitrogen and adamantyl pharmacophoric groups of the bioactive parent amines **11**, **27**, and **30** suggest that the influenza virus A receptor can accommodate different in size and orientation lipophilic cages.



Artificial ribonucleases: From combinatorial libraries to efficient catalysts of RNA cleavage **pp 274–286**

N. Kovalev, E. Burakova, V. Silnikov, M. Zenkova,* V. Vlassov

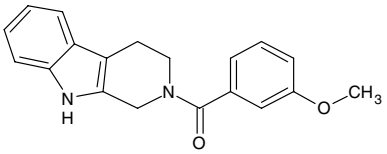


Inhibition of cancer cell growth by cyclin dependent kinase 4 inhibitors synthesized based on the structure of fascaplysin **pp 287–297**

Sachin Mahale, Carine Aubry, Paul R. Jenkins, Jean-Didier Maréchal, Michael J. Sutcliffe, Bhabatosh Chaudhuri*

CA199, a tryptamine analogue of fascaplysin, is a specific inhibitor of Cdk4-D1 in enzyme assays, blocks cancer cells at G_0/G_1 and prevents pRb hyperphosphorylation, but does not bind or intercalate DNA like fascaplysin.

CA199



Review

Structure–activity relationship of for-L-Met-L-Leu-L-Phe-OMe analogues in human neutrophils **pp 298–318**

Giorgio Cavicchioni,* Anna Fraulini, Sofia Falzarano, Susanna Spisani

Neutrophils migrate to infected tissues along a concentration gradient of chemoattractant molecules, e.g. for-Met-Leu-Phe-OMe (fMLP-OMe). The aim of the studies reported herein was twofold: to clarify the mechanisms whereby the ligand hooks its specific receptor and to verify the biological consequences arising from every possible variations on the fMLP-OMe prototype.

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