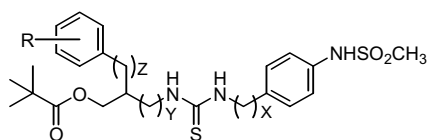


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- Analysis of structure–activity relationships with the *N*-(3-acyloxy-2-benzylpropyl)-*N'*-[4-(methylsulfonylamino)benzyl]thiourea template for vanilloid receptor 1 antagonism** pp 3411–3420

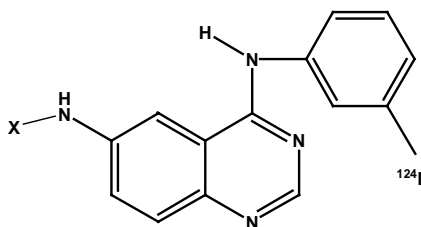
Jeewoo Lee,* Su Yeon Kim, Jiyoun Lee, Myungsim Kang, Min-Jung Kil, Hyun-Kyung Choi, Mi-Kyung Jin, Yun Wang, Attila Toth, Larry V. Pearce, Daniel J. Lundberg, Richard Tran and Peter M. Blumberg



Analysis of structure–activity relationship with the *N*-(3-acyloxy-2-benzylpropyl)-*N'*-[4-(methylsulfonylamino)benzyl]thiourea template for vanilloid receptor antagonism.

- Novel iodine-124 labeled EGFR inhibitors as potential PET agents for molecular imaging in cancer** pp 3421–3429

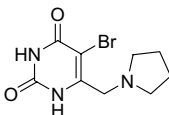
Mazal Shaul, Galith Abourbeh, Orit Jacobson, Yulia Rozen, Desideriu Laky, Alexander Levitzki and Eyal Mishani*



X = MeOCH₂CO-, ClCH₂CO-, Me₂NCH₂CHCHCO-

- Synthesis and evaluation of 6-methylene-bridged uracil derivatives. Part 1: Discovery of novel orally active inhibitors of human thymidine phosphorylase** pp 3431–3441

Shingo Yano,* Hideki Kazuno, Norihiko Suzuki, Tomohiro Emura, Konstanty Wierzba, Jun-ichi Yamashita, Yukio Tada, Yuji Yamada, Masakazu Fukushima and Tetsuji Asao

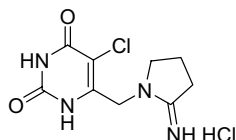


Discovery, synthesis, and evaluation of novel orally active human thymidine phosphorylase inhibitors are reported.

Synthesis and evaluation of 6-methylene-bridged uracil derivatives. Part 2: Optimization of inhibitors of human thymidine phosphorylase and their selectivity with uridine phosphorylase

pp 3443–3450

Shingo Yano,* Hideki Kazuno, Tsutomu Sato, Norihiko Suzuki, Tomohiro Emura, Konstanty Wierzba, Jun-ichi Yamashita, Yukio Tada, Yuji Yamada, Masakazu Fukushima and Tetsuji Asao

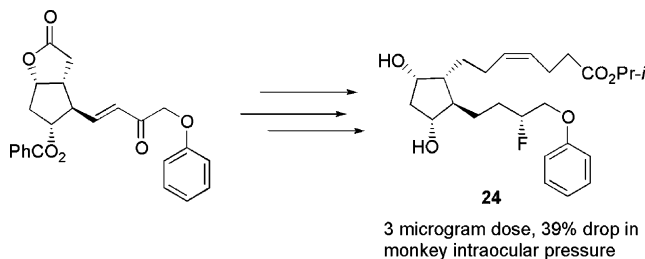


A series of novel 6-methylene-bridged uracil derivatives, as the inhibitors of human thymidine phosphorylase have been optimized for clinical use.

15-Fluoro prostaglandin FP agonists: a new class of topical ocular hypotensives

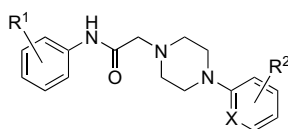
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Peter Klimko,* Mark Hellberg, Marsha McLaughlin, Najam Sharif, Bryon Severns, Gary Williams, Karen Haggard and John Liao


Synthesis and functional activity of (2-aryl-1-piperazinyl)-N-(3-methylphenyl)acetamides: selective dopamine D₄ receptor agonists

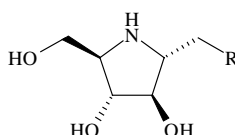
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Mark A. Matulenko,* Ahmed A. Hakeem, Teodozyi Kolasa, Masaki Nakane, Marc A. Terranova, Marie E. Uchic, Loan N. Miller, Renjie Chang, Diana L. Donnelly-Roberts, Marian T. Namovic, Robert B. Moreland, Jorge D. Brioni and Andrew O. Stewart


Probing the aglycon binding site of a β -glucosidase: a collection of C-1-modified 2,5-dideoxy-2,5-imino-D-mannitol derivatives and their structure–activity relationships as competitive inhibitors

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Tanja M. Wrodnigg, Frederik Diness, Christoph Gruber, Herwig Häusler, Inge Lundt, Karen Rupitz, Andreas J. Steiner, Arnold E. Stütz,* Chris A. Tarling, Stephen G. Withers and Heidrun Wölfler

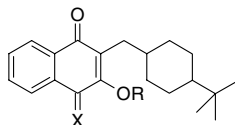


Syntheses and evaluation as competitive β -glucosidase inhibitors of a collection of C-1 derivatives of the potent, naturally occurring glucosidase inhibitor DMDP are reported.

Synthesis and antileishmanial activity of novel buparvaquone oxime derivatives

pp 3497–3502

Antti Mäntylä,* Jarkko Rautio, Tapio Nevalainen, Jouko Vepsäläinen, Risto Juvonen, Howard Kendrick, Tracy Garnier, Simon L. Croft and Tomi Järvinen



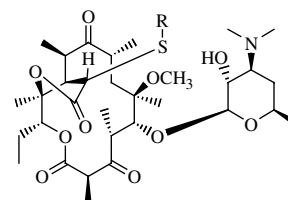
- | | |
|-----------------------------|-----------------------|
| 1: X = -O, | R = -H (Buparvaquone) |
| 2: X = -NOH, | R = -H |
| 3: X = -NOCH ₃ , | R = -H |
| 4: X = -O, | R = -CH ₃ |
| 5: X = -NOH, | R = -CH ₃ |

Novel ketolide antibiotics with a fused five-membered lactone ring—synthesis, physicochemical and antimicrobial properties

pp 3503–3519

Daniel Hunziker,* Pierre-C. Wyss, Peter Angehrn, Aranka Mueller, Hans-Peter Marty, Remy Halm, Laurenz Kellenberger, Veronique Bitsch, Gerard Biringer, Wolf Arnold, Andreas Stämpfli, Anne Schmitt-Hoffmann and Denis Cousot

A new series of ketolides A with a fused five-membered lactone ring was synthesized on the basis of commercially available clarithromycin as a starting material. The chemical approach as well as chemical and biological properties of lactone ketolides A are described.

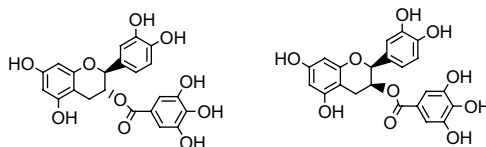


A: R = aryl, alkyl, arylalkyl

Study of the green tea polyphenols catechin-3-gallate (CG) and epicatechin-3-gallate (ECG) as proteasome inhibitors

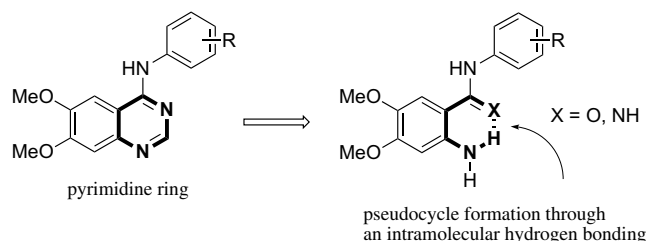
pp 3521–3527

Sheng Biao Wan, Di Chen, Q. Ping Dou and Tak Hang Chan*

**Benzamides and benzamidines as specific inhibitors of epidermal growth factor receptor and v-Src protein tyrosine kinases**

pp 3529–3542

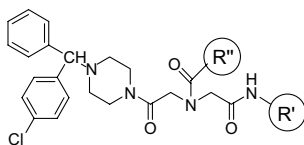
Toru Asano, Tomohiro Yoshikawa, Taikou Usui, Hiroshi Yamamoto, Yoshinori Yamamoto, Yoshimasa Uehara and Hiroyuki Nakamura*



Solution-phase combinatorial synthesis of nonpeptide bradykinin antagonists

pp 3543–3552

Yoo Lim Kam, Soo-Jin Rhee and Hea-Young P. Choo*

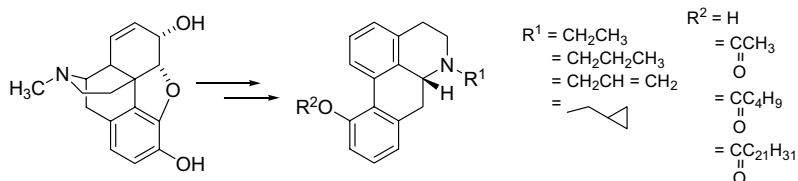


We describe the solution-phase combinatorial synthesis and pharmacological effect of fifty *N,N'*-substituted-*N''*-1-(4-chlorobenzhydryl)piperazine iminodiacetic acid triamide derivatives as nonpeptide B2 antagonists.

Synthesis and neuropharmacological evaluation of R(-)-*N*-alkyl-11-hydroxynoraporphines and their esters

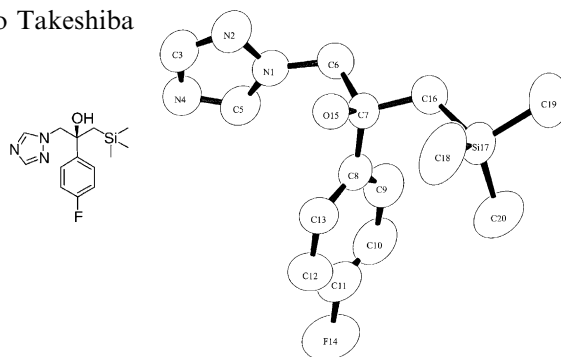
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Csaba Csutoras, Ao Zhang, Kehong Zhang, Nora S. Kula, Ross J. Baldessarini and John L. Neumeyer*

**Synthesis and fungicidal activity of enantiomerically pure (*R*)- and (*S*)-silicon-containingazole fungicides**

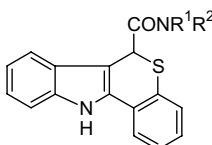
pp 3561–3567

Hiroyuki Itoh,* Youji Furukawa, Mikio Tsuda and Hideo Takeshiba

**Design, synthesis, and structure–activity relationships of novel tetracyclic compounds as peripheral benzodiazepine receptor ligands**

pp 3569–3580

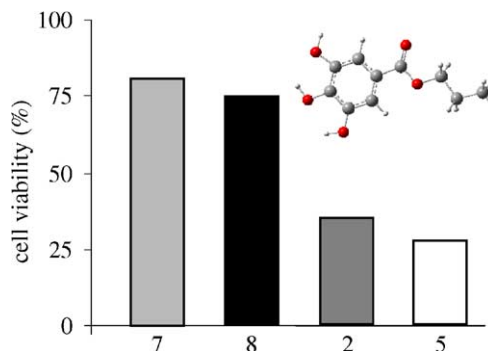
Taketoshi Okubo,* Ryoko Yoshikawa, Shigeyuki Chaki, Shigeru Okuyama and Atsuro Nakazato

**12e** ($R^1, R^2 = \text{Et}, \text{Et}$) : $\text{IC}_{50} = 0.44 \text{ nM}$ **12f** ($R^1, R^2 = \text{Pr}, \text{Pr}$) : $\text{IC}_{50} = 0.37 \text{ nM}$

Phenolic acid derivatives with potential anticancer properties—a structure–activity relationship study. pp 3581–3589
Part 1: Methyl, propyl and octyl esters of caffeic and gallic acids

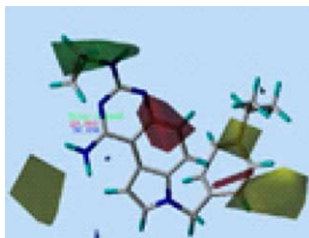
S. M. Fiuza, C. Gomes, L. J. Teixeira, M. T. Girão da Cruz,
 M. N. D. S. Cordeiro, N. Milhazes, F. Borges and M. P. M. Marques*

The cytotoxic properties of polyhydroxylated phenolic esters (methyl, propyl and octyl caffeates and gallates) were tested, in human cervix adenocarcinoma cells (HeLa). In addition, structural information was obtained for these compounds by theoretical (ab initio) methods. Evident structure–activity relationships (SARs) were found to rule the biological effect of such systems.



Development of CoMFA, advance CoMFA and CoMSIA models in pyrroloquinazolines as thrombin receptor antagonist pp 3591–3598

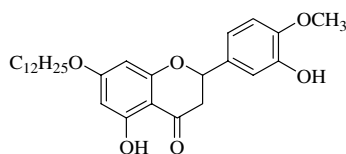
Anshuman Dixit, Sushil K. Kashaw, Stuti Gaur and Anil K. Saxena*



3D QSAR studies viz CoMFA, advance CoMFA and CoMSIA have been performed on pyrroloquinazolines to identify the essential structural and physico-chemical features. Some good models were developed.

Evaluation of hesperetin 7-*O*-lauryl ether as lipid-lowering agent in high-cholesterol-fed rats pp 3599–3605

Gab-Sun Choi, Sangku Lee, Tae-Sook Jeong, Mi-Kyung Lee, Jeong-Sun Lee, Un Ju Jung,
 Hye-Jin Kim, Yong Bok Park, Song-Hae Bok and Myung-Sook Choi*

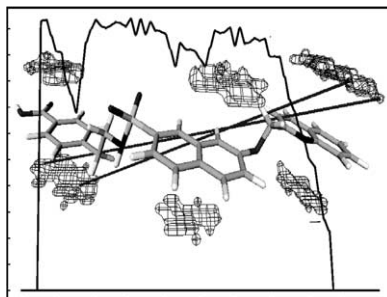


Hesperetin 7-*O*-lauryl ether

This study examined the lipid-lowering effect of hesperetin 7-*O*-lauryl ether in high-cholesterol-fed rats. The supplementation of this compound was effective in altering lipid metabolism and lowering plasma cholesterol level.

GRIND/ALMOND investigations on CysLT₁ receptor antagonists of the quinolinyl(bridged)aryl type pp 3607–3617

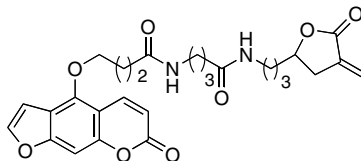
Paolo Benedetti, Raimund Mannhold, Gabriele Cruciani* and Giorgio Ottaviani



Synthesis and photocytotoxic activity of new α -methylene- γ -butyrolactone-psoralen heterodimers

pp 3619–3625

Sandrine Ropp, Julia Guy, Valérie Berl, Pierre Bischoff and Jean-Pierre Lepoittevin*



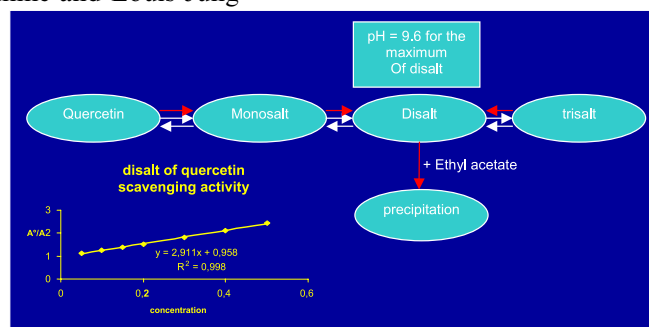
New α -methylene- γ -butyrolactone-psoralen heterodimers were synthesized and their photoantiproliferative activity assessed on three human cancer cell lines. These compounds were found to be nonphototoxic on mice skin according to the MEST.

Isolation of quercetin's salts and studies of their physicochemical properties and antioxidant relationships

pp 3627–3635

Hadi A. Milane,* Geneviève Ubeaud, Thierry F. Vandamme and Louis Jung

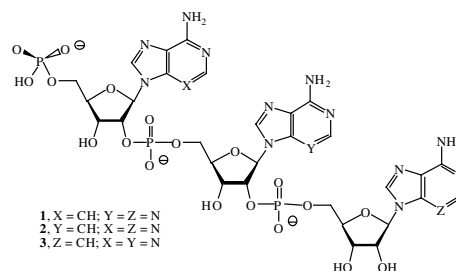
Hydroxyl radical scavenging constant of di-salt of quercetin isolated ($K_s = 1.3 \times 10^{10} \text{ M}^{-1} \text{ s}^{-1}$).

**3-Deazaadenosine analogues of p5'A2'p5'A2'p5'A: synthesis, stereochemistry, and the roles of adenine ring nitrogen-3 in the interaction with RNase L**

pp 3637–3647

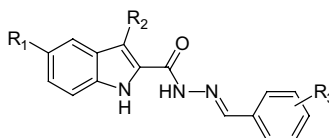
Elena N. Kalinichenko, Tatiana L. Podkopaeva, Elena V. Budko, Frank Seela, Beihua Dong, Robert Silverman, Jouko Vepsäläinen, Paul F. Torrence and Igor A. Mikhailopulo*

Sequence-specific 3-deazaadenosine (c^3A)-substituted analogues of trimeric 2',5'-oligoadenylate, p5'A2'p5'A2'p5'A, were synthesized and evaluated for their ability to activate human RNase L (EC 3.1.2.6) aiming at the elucidation of the nitrogen-3 role in this biochemical process.

**Discovery and SAR of indole-2-carboxylic acid benzylidene-hydrazides as a new series of potent apoptosis inducers using a cell-based HTS assay**

pp 3649–3655

Han-Zhong Zhang, John Drewe, Ben Tseng, Shailaja Kasibhatla and Sui Xiong Cai*

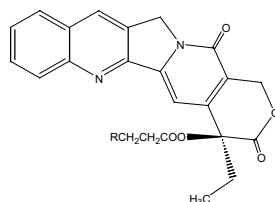


The discovery of indole-2-carboxylic acid benzylidene-hydrazides as a new series of potent inducers of apoptosis using a cell- and caspase-based HTS assay, as well as SAR studies and characterization of these compounds as inducers of apoptosis and tubulin inhibitors are reported.

Synthesis and antitumor activity of 20-*O*-linked nitrogen-based camptothecin ester derivatives

pp 3657–3662

Cun-ying Wang, Xian-dao Pan,* Hong-yan Liu, Zhao-di Fu, Xian-yong Wei and Li-Xi Yang

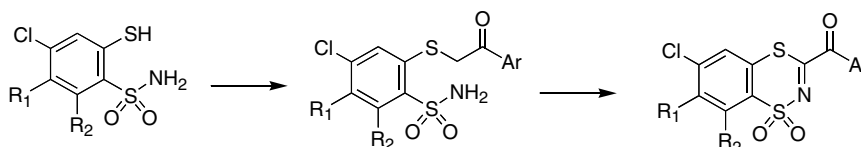


A series of nitrogen-based 20*S*-hydroxyl camptothecin derivatives were prepared. 3-Aminopropionate of camptothecin was found more cytotoxic in vitro on several human tumor cell lines than 3-amidopropionate of camptothecin. Ester **16** showed best antitumor activity in vivo and in vitro in all esters prepared.

Synthesis, antiviral, and anti-HIV-1 integrase activities of 3-aryl-1,1-dioxo-1,4,2-benzodithiazines

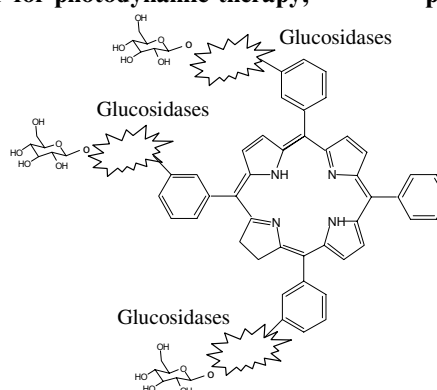
pp 3663–3672

Zdzislaw Brzozowski, Franciszek Saczewski,* Tino Sanchez, Chih-Ling Kuo, Maria Gdaniec and Nouri Neamati*

**A study of the stability of tri(glucosyloxyphenyl)chlorin, a sensitizer for photodynamic therapy, in human colon tumoural cells: a liquid chromatography and MALDI-TOF mass spectrometry analysis**

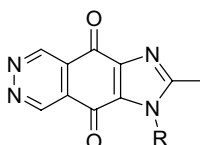
pp 3673–3682

I. Laville, S. Pigaglio, J.-C. Blais, B. Loock, Ph. Maillard, D. S. Grierson and J. Blais*

**Synthesis and cytotoxicity of 1-substituted 2-methyl-1*H*-imidazo[4,5-*g*]phthalazine-4,9-dione derivatives**

pp 3683–3686

Jin Sung Kim, Hyun-Jung Lee, Myung-Eun Suh,* Hea-Young Park Choo,* Sang Kook Lee, Hyen Joo Park, Choonmi Kim, Sang Woo Park and Chong-Ock Lee

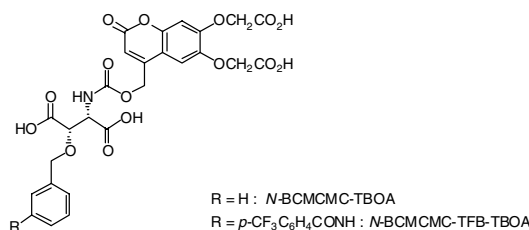


R: a=Me, b=Et, c=Pr, d=ⁱPr,
e=ⁿBu, f=Ph, g=Tolyl

Synthesis of carbamate-type caged derivatives of a novel glutamate transporter blocker

pp 3687–3694

Kiyo Takaoka, Yoshiro Tatsu, Noboru Yumoto, Terumi Nakajima and Keiko Shimamoto*

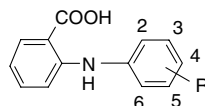


Carbamate-type caged blockers for glutamate transporters, *N*-BCMCMC-TBOA and *N*-BCMCMC-TFB-TBOA, were synthesized and revealed to be stable in aqueous solution. Photolysis of *N*-BCMCMC-TBOAs immediately released L-TBOAs to inhibit glutamate uptake.

Topological models for prediction of anti-inflammatory activity of *N*-arylanthranilic acids

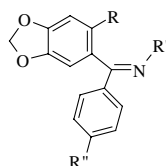
pp 3695–3701

Sanjay Bajaj, S. S. Sambi and A. K. Madan*

**Design of 1-substituted 2-arylmethyl-4,5-methylenedioxybenzene derivatives as antiseizure agents**

pp 3703–3709

Nicola Micale, Giovambattista De Sarro, Guido Ferreri, Maria Zappalá, Silvana Grasso, Giulia Puia and Carlo De Micheli*



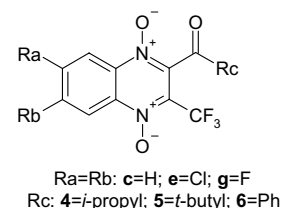
A series of 1-substituted 2-[(4-aryl)-methyl]-4,5-methylenedioxybenzene derivatives were synthesized and sound-induced seizure test was used to evaluate their anticonvulsant activity.

Synthesis and anticancer activity evaluation of new 2-alkylcarbonyl and 2-benzoyl-3-trifluoromethyl-quinoxaline 1,4-di-*N*-oxide derivatives

pp 3711–3721

Belén Zarranz, Andrés Jaso, Ignacio Aldana* and Antonio Monge

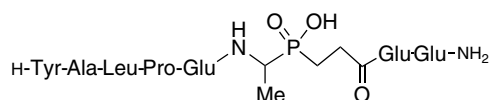
New series of 2-alkylcarbonyl and 2-benzoyl-3-trifluoromethylquinoxaline 1,4-di-*N*-oxide derivatives have been synthesized and evaluated for in vitro antitumor activity against a 3-cell line panel, consisting of MCF7 (breast), NCI-H460 (lung), and SF-268 (CNS). These active compounds were then evaluated in the full panel of 60 human tumor cell lines derived from nine cancer cell types. The results have shown that, in general, anticancer activity depends on the substituents in the carbonyl group (Rc), improving in the order: ethyl < isopropyl < *tert*-butyl < phenyl-ones. Among these, the compounds **4c**, **6e**, their difluorinated analogs (**4g** and **6g**), and **5c** were the most active, with mean GI₅₀ values of 1.02, 0.42, 0.52, 0.15, and 0.49 μM, respectively. All of them were also found to inhibit the growth of the all of the Leukemia cell lines studied (with 75% of the GI₅₀ values less than 0.15 μM) and therefore, were selected for further evaluation for the in vivo hollow fiber assay.



Inhibition of the *Staphylococcus aureus* sortase transpeptidase SrtA by phosphinic peptidomimetics

pp 3723–3729

Ryan G. Kruger, Salim Barkallah, Brenda A. Frankel and Dewey G. McCafferty*

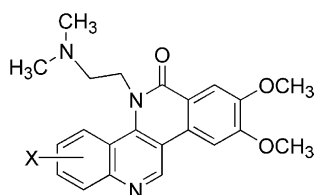


The *Staphylococcus aureus* sortase transpeptidase, SrtA, is competitively inhibited by the phosphinate containing peptidomimetic, NH₂-YALPE-AlaΨ{PO₂H-CH₂}Gly-EE-NH₂.

Nitro and amino substitution within the A-ring of 5*H*-8,9-dimethoxy-5-(2-*N,N*-dimethylaminoethyl)-dibenzo[*c,h*][1,6]naphthyridin-6-ones: influence on topoisomerase I-targeting activity and cytotoxicity

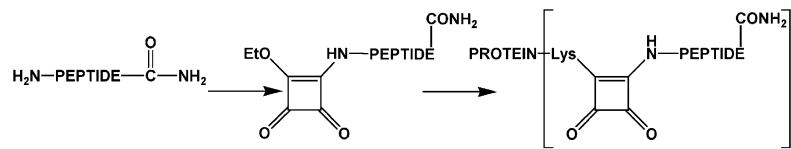
pp 3731–3742

Alexander L. Ruchelman, John E. Kerrigan, Tsai-Kun Li, Nai Zhou, Angela Liu, Leroy F. Liu and Edmond J. LaVoie*

Where X = H, NO₂, NH₂**Synthesis and immunochemical characterization of protein conjugates of carbohydrate and carbohydrate-mimetic peptides as experimental vaccines**

pp 3743–3754

Rehana B. Hossany, Margaret A. Johnson, Adewale A. Eniade and B. Mario Pinto*




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*Corresponding author

* Supplementary data available via ScienceDirect

COVER

2004: Overlaps of the eight known aldolase alpha-beta barrels in 2-deoxyribose-5-phosphate aldolase (DERA). Ribbon model for DERA is shown in green, with key Lys residues capable of Schiff base formation highlighted in stick figure. Reactive Lys167 is shown in yellow. DeSantis, G.; Liu, J.; Clark, D. P.; Heine, A.; Wilson, I. A.; and Wong, C.-H. *Bioorganic & Medicinal Chemistry* **2003**, *11*, 43–52.



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