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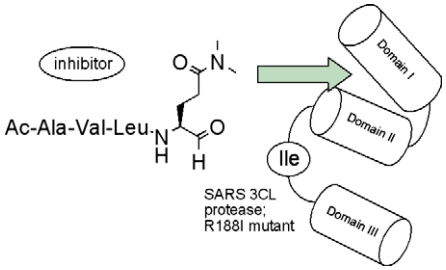
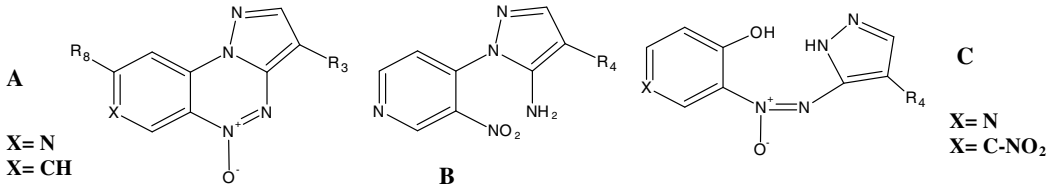
Contents

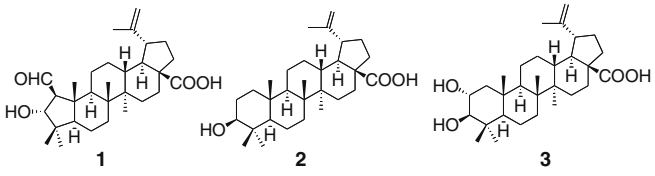
ARTICLES



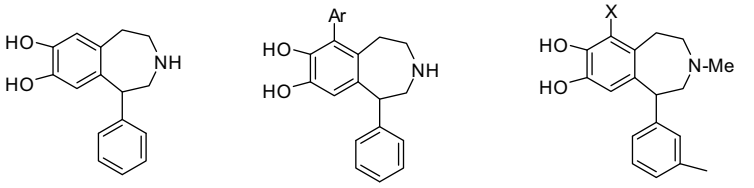
The mature SARS 3CL protease is subject to degradation at 188Arg/189Gln. The tetrapeptide sequence is enough for inhibitory activities of peptide-aldehyde inhibitor of the protease.



The synthesis and antitumor activity in normoxic and hypoxic conditions of a series of pyrazolo[5,1-*c*][1,2,4]benzotriazine and related analogues are reported. All compounds were tested on human colorectal adenocarcinoma cell line HCT-8; ROS production, cell cycle, and DNA fragmentation were also measured.



By using our constructed cell-based screening system, three pentacyclic triterpenes, colubrinic acid (**1**), betulinic acid (**2**) and alphitolic acid (**3**), were identified from *Zizyphus cambodiana* as potent hedgehog (Hh)/GLI signaling pathway inhibitors.

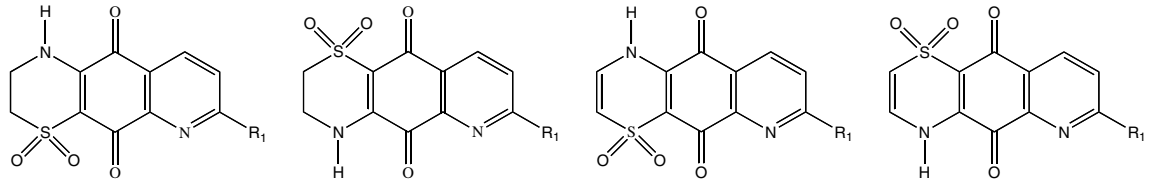


(±)-**1**
R/S(±)-SKF-38393

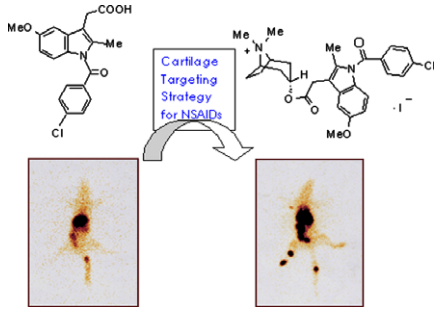
7a (Ar = Ph); **7d** (Ar = 4-F-Ph);
7b (Ar = 3-tolyl); **7e** (Ar = 2-naphthyl)
7c (Ar = 4-Cl-Ph);

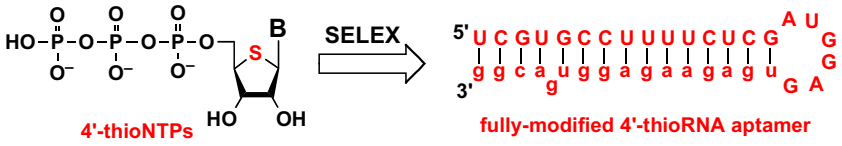
17a (Ar = 3-tolyl)
17b (Ar = 2-naphthyl)

A series of 6-substituted analogs of (±)-SKF-38393 ((±)-**1**) was synthesized, and their binding affinity for dopamine receptors (D_1, D_2) and serotonin receptors (5-HT_{1A}, 5-HT_{2A}) were evaluated.



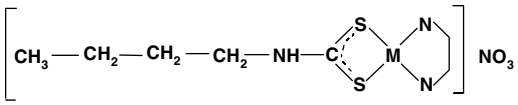
Synthesised thiazine–quinoline–quinones were assayed for inhibition of superoxide production in vitro. Analogues were tested in vivo for inhibition of neutrophil superoxide production and infiltration induced by monosodium urate crystals.



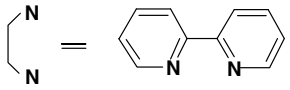


Investigation of in vitro transcription using four kinds of 4′-thioNTPs was examined. As a result, we succeeded to isolate fully-modified 4′-thioRNA aptamer.

Two platinum(II) and palladium(II) complexes have been synthesized and characterized by spectroscopic and nonspectroscopic methods. These water soluble complexes have been tested for their in vitro anti-tumor activity against chronic myelogenous leukemia cell line, K562. The interaction of these complexes with calf thymus DNA was extensively investigated by a variety of spectroscopic techniques. Electronic absorption titration and fluorescence studies showed that both the complexes exhibit cooperative binding and presumably intercalating in DNA.



M=Pd(II) or Pt(II)



OTHER CONTENTS

*Corresponding author
ⓘ+ Supplementary data available via ScienceDirect

COVER

An insight into biologically relevant chemical space showing the scaffolds of potential natural-product based inhibitors orbiting their target, the protein structure of protein 11-beta steroid dehydrogenase (PDB code 1xu7). Graphic produced using Pymol (http://www.pymol.org). [M. A. Koch, A. Schuffenhauer, M. Scheck, S. Wetzel, M. Casaulta, A. Odermatt, P. Ertl, H. Waldmann, Charting biologically relevant chemical space: A structural classification of natural products (SCONP), *PNAS* **2005**, *102*, 17272–17277 and S. Wetzel, H. Waldmann, Cheminformatic analysis of natural products and their chemical space, *Chimia* **2007**, *61*(6), 355–360].

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