

Anti-Inflammatory

Web URL: <http://www.sciencedirect.com/science/journal/09680896>

1. Novel semicarbazide-derived inhibitors of human dipeptidyl peptidase I (hDPPI)

Bondebjerg, J., Fuglsang, H., Valeur, K. R., Kaznelson, D. W., Hansen, J. A., Pedersen, R. O., Krogh, B. O., Jensen, B. S., Lauritzen, C., Petersen, G., Pedersen, J. and Naerum, L.

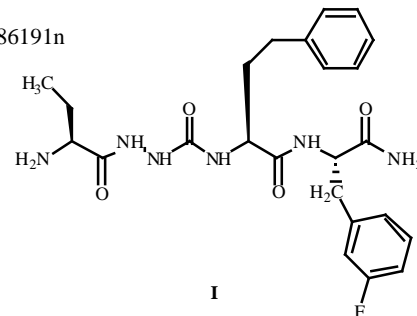
Combio A/S, Vesterbrogade 188, DK-1800 Frederiksberg C, Denmark; Prozymex A/S, Dr. Neergaards Vej 17, DK-2970 Hørsholm, Denmark

Bioorganic & Medicinal Chemistry 2005, **13**(14), 4408–4424; *C.A.* **143**(11): 186191n

Abstract: Some selected semicarbazide derivatives were identified among the library of compounds as human dipeptidyl peptidase I (hDPPI) inhibitors.

Activity: In the series of semicarbazide derivatives, compound **I** showed a potent DPPI inhibition with $IC_{50} = 31 \pm 3$ nM and $k_i = 45 \pm 2$ nM.

Origin: Synthetic



2. B-12489 Substances, their manufacture with *Pedobacter* sp., and their use for pharma-ceutical compositions for the treatment or prevention of inflammatory diseases

Nakajima, M., Hirota, Y., Ando, O., Kuraya, N., Agatsuma, S. and Fukuda, D.

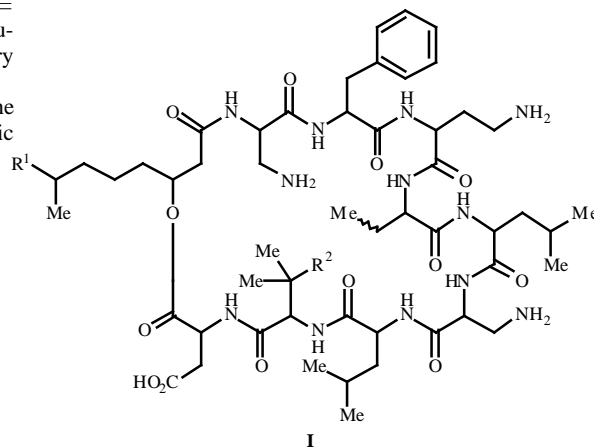
Sankyo Co., Ltd., Japan

Jpn. Kokai Tokkyo Koho JP **2005, 200, 324** (Cl. C07K7/06), 28 Jul. 2005, Appl. 2004/6,397, 14 Jan. 2004; 28 pp; *C.A.* **143**(10): 166645k

Abstract: The manufacture of B-12489 substances **I** ($R^1 = H, Me$; $R^2 = H, OH$) or their salts, has been described as useful pharmaceutical agents for the treatment or prevention of inflammatory diseases.

Activity: Compound **I** ($R^1 = Me, R^2 = OH$) was found to inhibit the endotoxin-induced TNF formation in human monocytic U937 cells with $IC_{50} = 0.5$ μ M.

Origin: Synthetic



3. Preparation of erythromycin macrolide derivative with anti-inflammatory activity

Mereu, A., Napoletano, M., Ornaghi, F., Moriggi, E. and Pellacini, F.

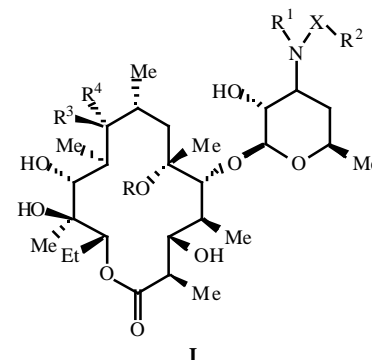
Zambon Group S.P.A., Via della Chimica, 9, I-36100 VICENZA, Italy

PCT Int. Appl. WO **2005, 75, 494** (Cl. C07H17/08), 18 Aug. 2005, IT Appl. 2004/MI124, 29 Jan. 2004; 49 pp; *C.A.* **143**(12): 212119s

Abstract: The synthesis of erythromycin macrolide derivatives having anti-inflammatory properties is described.

Activity: The compounds **I** ($R^1 = Me, R^2 = CONHPh, R^3 = H, R^4 = OH$) showed anti-inflammatory activity with inhibition range of 40–89.9%.

Origin: Synthetic



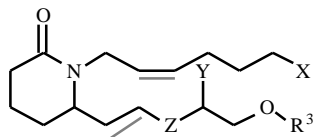
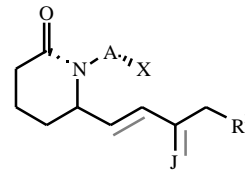
X = CO, CO₂, C(O)=N, SO₂, SO₂-N; R is H, Me; R¹ is H, alkyl; R² is H, alkoxy-alkyl, cycloalkyl, Ph, heteroaryl; R³ is OH or R³R⁴ taken together forms CO, oxime; R⁴ is H

4. Treatment of inflammatory bowel disease with prostaglandin piperidine analogs

Old, D. W., Dinh, D. T., Kedzie, K. M., Gil, D. W. and Im, W. B.

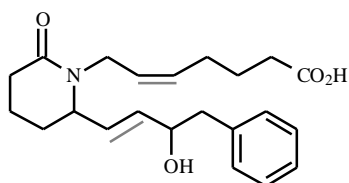
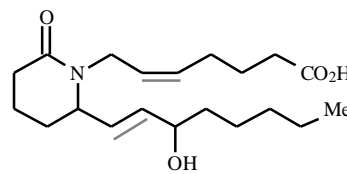
Allergan, Inc., 2525 Dupont Drive, Irvine, CA, 92612, USA

U.S. Pat. Appl. Publ. US 2005, 171, 062 (Cl. 514-89; A61K31/675), 4 Aug. 2005, US Appl. 2004/861, 957, 3 Jun. 2004; 63 pp; C.A. 143(11): 193851f

Abstract: The synthesis of prostaglandin piperidine analogs **I-IV** and their potential use for the treatment of inflammatory bowel disease is investigated.**Activity:** Compound **II** [A = CH₂-C ≡ (CH₂)₃, X = CO₂Me, J = O, R³ = Bu, dashed line = double bond] was found to show activity with EC₅₀ = >100 nM against human prostaglandin type p receptor.**Origin:** Synthetic**I****II**

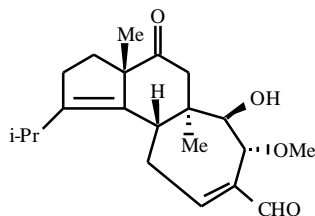
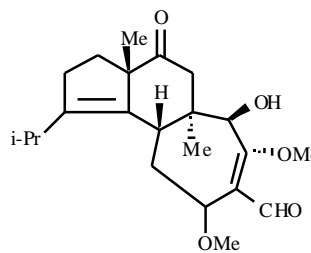
X = CO₂R, CONR₂, CH₂OR, P(:O)(OR)₂, CONRSO₂R, SO₂NR₂, 1-R-tetrazol-5-yl; Y = H, OR¹, -OR¹, -OR¹, :O; Z = CH₂, covalent bond; D = bond, CH₂, O, S, NH; R = H, R²; R¹ = H, R², Ph, thienyl, furanyl, pyridyl, benzothienyl, benzofuranyl, naphthyl; optional substituents = C₁₋₅-alkyl, halogen, CN, NO₂, NR₂, CO₂R, OR; dashed line in -chain = single or double bond, in -chain = single or double bond; hatched lines = -configuration; wedged lines = -configuration

A = (CH₂)₆, *cis*-CH₂CH=CH-(CH₂)₃, CH₂CH=C(CH₂)₃, O(CH₂)₅, CH₂O(CH₂)₄, *cis*-CHO=CH(CH₂)₃, OC=C-(CH₂)₃; J = C=O, OH; dashed lines in -chain = single or double bond

**III****IV****Web URL:** <http://www.thieme-connect.com/DOI/DOI?10.1055/s-2005-837792>5. Glaucopines A and B, new cyathane diterpenes from the fruiting bodies of *Sarcodon glaucopus*

Curini, M., Maltese, F., Marcotullio, M. C., Menghini, L., Pagiotti, R., Rosati, O., Altinier, G. and Tubaro, A.

Dipartimento di Chimica e Tecnologia del Farmaco, Sez. Chimica Organica, Università degli Studi, 06123 Perugia, Italy

Planta Medica 2005, 71(2), 194-196; C.A. 143(13): 225663q**Abstract:** Glaucopines A (**I**) and B (**II**), two new cyanthane diterpenes, have been isolated from the mushroom *Sarcodon glaucopus* and evaluated as anti-inflammatory agents.**Activity:** Compounds **I** and **II** (1 μmol/cm²) reduced edema (62% and 55%, respectively), approximately similar to the standard anti-inflammatory drug, indomethacin (0.3 μmol/cm²).**Origin:** Synthetic**I****II**

6. Preparation of octahydronaphthalen derivatives as ICAM-1 manifestation inhibitor

Yamada, N.

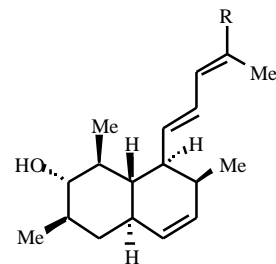
Nippon Shinyaku, Co., Ltd. Kyoto 6018550, Japan

PCT Int. Appl. WO 2005, 70, 856 (Cl. C07C35/36), 4 Aug. 2005, JP Appl. 2003/435, 677, 26 Dec. 2003; 40 pp; C.A. 143(11): 193815x

Abstract: This patent describes the synthesis of compound **I** by these esterification of (2*E*,4*E*)-**I** [R = COOH] with trimethylsilyldiazomethane to afford (2*E*,4*E*)-**I** [R = COOMe]. These compounds were evaluated in ICAM-1 manifestation inhibition assays.

Activity: Compound **I** was found to be ICAM-1 inhibitor with IC₅₀ = 0.67 μM.

Origin: Synthetic



I
R = carboxy etc