



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<p>(51) International Patent Classification⁴ : C07K 5/02, C07D 233/64 C07D 401/12 // A61K 31/415 A61K 37/64 (C07D 401/12 C07D 213:00, 233:00)</p>	A3	<p>(11) International Publication Number: WO 87/ 05302</p> <p>(43) International Publication Date: 11 September 1987 (11.09.87)</p>
<p>(21) International Application Number: PCT/US87/00291</p> <p>(22) International Filing Date: 13 February 1987 (13.02.87)</p> <p>(31) Priority Application Numbers: 833,993 904,149</p> <p>(32) Priority Dates: 27 February 1986 (27.02.86) 5 September 1986 (05.09.86)</p> <p>(33) Priority Country: US</p> <p>(60) Parent Application or Grant (63) Related by Continuation US 904,149 (CON) Filed on 5 September 1986 (05.09.86)</p> <p>(71) Applicant (for all designated States except US): THE UPJOHN COMPANY [US/US]; 301 Henrietta Street, Kalamazoo, MI 49001 (US).</p>		<p>(72) Inventor; and (75) Inventor/Applicant (for US only) : THAISRIVONGS, Suvit [TH/US]; 1327 Edington Avenue, Portage, MI 49002 (US).</p> <p>(74) Agent: WELCH, Lawrence, T.; Patent Law Depart- ment, The Upjohn Company, Kalamazoo, MI 49001 (US).</p> <p>(81) Designated States: AT (European patent), AU, BE (Eu- ropean patent), CH (European patent), DE (Euro- pean patent), DK, FI, FR (European patent), GB (European patent), IT (European patent), JP, KR, LU (European patent), NL (European patent), NO, SE (European patent), US.</p> <p>Published <i>With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i></p> <p>(88) Date of publication of the international search report: 19 November 1987 (19.11.87)</p>
<p>(54) Title: NOVEL RENIN-INHIBITING PEPTIDES HAVING A DIHYDROXYETHYLENE ISOSTERE TRANS- ITION STATE INSERT</p>		
<p>(57) Abstract</p> <p>Novel renin-inhibiting peptides of the formula X-A₆-B₇-C₈-D₉-E₁₀-F₁₁-G₁₂-H₁₃-I₁₄-Z, wherein the E₁₀-F₁₁ moiety is a dihydroxyethylene isostere, X and Z are terminal groups, and the remaining variables are absent or are amino acid residues. Such inhibitors are useful for the control of hypertension.</p>		

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 87/00291

I. CLASSIFICATION OF SUBJECT MATTER (if several classification symbols apply, indicate all) ⁶		
According to International Patent Classification (IPC) or to both National Classification and IPC		
4 C 07 K 5/02; C 07 D 233/64; 401/12; // A 61 K 31/415; IPC : 37/64; (C 07 D 401/12, 213:00, 233:00)		
II. FIELDS SEARCHED		
Minimum Documentation Searched ⁷		
Classification System :	Classification Symbols	
IPC ⁴	C 07 K 5/00; A 61 K 37/00; C 07 D 233/64; A 61 K 31/00	
Documentation Searched other than Minimum Documentation to the Extent that such Documents are Included in the Fields Searched ⁸		
III. DOCUMENTS CONSIDERED TO BE RELEVANT ⁹		
Category ⁹	Citation of Document, ¹¹ with indication, where appropriate, of the relevant passages ¹²	Relevant to Claim No. ¹³
Y	EP, A, 0128762 (SANKYO) 19 December 1984 see pages 82-83, claim 1; page 86, claim 5; pages 14-21; examples 1-7,13 --	1
Y	EP, A, 0156322 (MERCK) 2 October 1985 see pages 70-82, claims 1,2 cited in the application --	1
A	EP, A, 0045665 (M. SZELKE) 10 February 1982 cited in the application --	
A	EP, A, 0077028 (MERCK) 20 April 1983 cited in the application --	
P,Y	EP, A, 0173481 (UPJOHN) 5 March 1986 see pages 148-159, claim 1 --	1-3
P,Y	EP, A, 0189203 (ABBOTT) 30 July 1986 see page 54, claim 1 --	1-3
P,Y	EP, A, 0184855 (ABBOTT) 18 June 1986 ./.	
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IV. CERTIFICATION		
Date of the Actual Completion of the International Search	Date of Mailing of this International Search Report	
1st September 1987	1 OCT 1987	
International Searching Authority	Signature of Authorized Officer	
EUROPEAN PATENT OFFICE	L. ROSSI	

III. DOCUMENTS CONSIDERED TO BE RELEVANT (CONTINUED FROM THE SECOND SHEET)		
Category *	Citation of Document, with indication, where appropriate, of the relevant passages	Relevant to Claim No
T	see page 17, examples 50,51 -- Journal of Medicinal Chemistry, volume 30, June 1987, American Chemical Society, (Washington, DC, US), S. Thaisrivongs et al.: "Renin inhibitors. Design of angiotensinogen transition-state analogues containing novel (2R,3R,4R,5S)-5-amino-3,4- dihydroxy-2-isopropyl-7-methyloctanoic acid", pages 976-982 -----	1-3

ANNEX TO THE INTERNATIONAL SEARCH REPORT ON

INTERNATIONAL APPLICATION NO. PCT/US 87/00291 (SA 16331)

This Annex lists the patent family members relating to the patent documents cited in the above-mentioned international search report. The members are as contained in the European Patent Office EDP file on 11/09/87

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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		US-A- 4548926	22/10/85
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For more details about this annex :
see Official Journal of the European Patent Office, No. 12/82