United States Patent [19]

Metcalf et al.

[11] **4,182,891**

[45] **Jan. 8, 1980**

[54] **α-ACETYLENIC DERIVATIVES OF α-AMINO ACIDS**

[75] Inventors: **Brian W. Metcalf**, Strasbourg; **Michel Jung**, Illkirch Graffenstaden, both of France

[73] Assignee: **Merrell Toraude et Compagnie**, Strasbourg, France

[21] Appl. No.: **812,067**

[22] Filed: **Jul. 1, 1977**

[51] **Int. Cl.**[2] **C07D 211/72**; C07D 223/10; C07C 101/24

[52] **U.S. Cl.** ..... **546/243**; 260/239 B; 260/558 A; 260/558 S; 260/559 A; 260/559 T; 260/561 A; 424/253; 424/300; 424/311; 424/319; 424/320; 536/26; 560/16; 560/25; 560/39; 560/41; 560/153; 560/158; 560/168; 560/169; 562/426; 562/448; 562/450; 562/556; 562/560; 562/561

[58] **Field of Search** ..... 562/561, 556, 560, 426, 562/450, 448; 560/168, 158, 41, 39, 169, 25, 16, 153; 536/26; 260/561 A, 558 A, 559 A, 559 T, 558 S, 239 B; 546/243

[56] **References Cited**

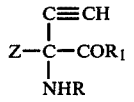
U.S. PATENT DOCUMENTS

2,513,831	7/1950	Warner et al.	546/243
3,959,356	5/1976	Metcalf et al.	562/561 X
4,133,964	1/1979	Metcalf et al.	562/561 X
4,139,563	2/1979	Metcalf et al.	260/583 H

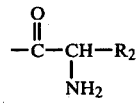
Primary Examiner—John M. Ford
Assistant Examiner—Richard A. Schwartz
Attorney, Agent, or Firm—L. Ruth Hattan; Eugene O. Retter; George W. Rauchfuss, Jr.

[57] **ABSTRACT**

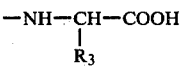
Novel acetylenic derivatives of α-amino acids of the following general structure:



wherein Z is β-methylthioethyl, β-benzylthioethyl, S-(5'-desoxyadenosin-5'-yl)-S-methylthioethyl, γ-guanidinopropyl, or $RHN(CH_2)_n$—; n is the integer 3 or 4; each R is hydrogen, alkylcarbonyl wherein the alkyl moiety has from 1 to 4 carbon atoms and is straight or branched, alkoxycarbonyl wherein the alkoxy moiety has from 1 to 4 carbon atoms and is straight or branched, or



wherein R_2 is hydrogen, a straight or branched lower alkyl group of from 1 to 4 carbon atoms, benzyl or p-hydroxybenzyl; R_1 is hydroxy, a straight or branched alkoxy group of from 1 to 8 carbon atoms, $—NR_4R_5$ wherein each of R_4 and R_5 is hydrogen or a lower alkyl group of from 1 to 4 carbon atoms, or



wherein R_3 is hydrogen, a straight or branched lower alkyl group of from 1 to 4 carbon atoms, benzyl or p-hydroxybenzyl; and the lactams thereof when Z is $RHN(CH_2)_n$— and each R is hydrogen; with the provisos that when Z is β-benzylthioethyl or S-(5'-desoxyadenosin-5'-yl)-S-methyl-thioethyl, R is hydrogen and R_1 is hydroxy, when Z is γ-guanidinopropyl, R is hydrogen and R_1 is hydroxy or a straight or branched lower alkoxy group of from 1 to 8 carbon atoms, and when Z is $RHN(CH_2)_n$— both R groups are the same; and pharmaceutically acceptable salts and individual optical isomers thereof.

8 Claims, No Drawings