

**United States Patent** [19][11] **Patent Number:** **5,674,907****Southan et al.**[45] **Date of Patent:** **Oct. 7, 1997**[54] **MERCAPTO DERIVATIVES AS INHIBITORS OF NITRIC OXIDE SYNTHASE**[75] **Inventors:** **Garry J. Southan; Andrew L. Salzman; Csaba Szabó**, all of Cincinnati, Ohio[73] **Assignee:** **Children's Hospital Medical Center**, Cincinnati, Ohio[21] **Appl. No.:** **410,312**[22] **Filed:** **Mar. 24, 1995**[51] **Int. Cl.<sup>6</sup>** ..... **A61K 31/155; A61K 31/55; A61K 31/54; A61K 31/425**[52] **U.S. Cl.** ..... **514/634; 514/211; 514/224.2; 514/368; 514/665**[58] **Field of Search** ..... **514/634, 665, 514/211, 224.2, 368**[56] **References Cited****FOREIGN PATENT DOCUMENTS**

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[57]

**ABSTRACT**

This invention is directed to a pharmacologically acceptable composition for inhibiting nitric oxide synthase in a mammal, which includes a mercapto derivative and a pharmaceutically acceptable carrier. The invention also concerns a method of inhibiting nitric oxide synthase, selectively inhibiting the inducible isoform of nitric oxide synthase, and treating various conditions where there is an advantage in inhibiting nitric oxide biosynthesis. The method includes the step of administering to a mammal a mercapto derivative in pure form or in a pharmaceutically acceptable carrier.

**26 Claims, 3 Drawing Sheets**