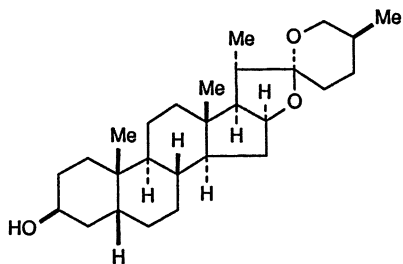


15.1 Introduction

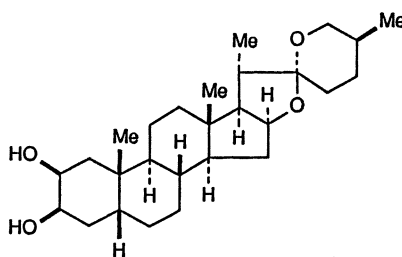
Zhimu, Rhizoma Anemarrhenae, is the dry rootstock of *Anemarrhena asphodeloides* Bge. (Liliaceae) dug in spring and fall. It has been used for a long time in traditional Chinese medicine as an antipyretic, sedative, and diuretic agent.

15.2 Chemical Constituents

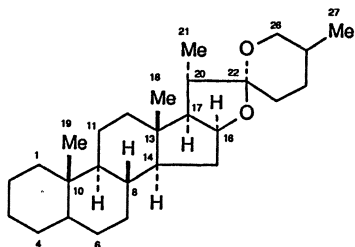
The main constituents of the rhizome of *A. asphodeloides* are saponins and saponins of steroid nature, especially sarsasapogenin and its glycosides. The saponins isolated and reported are sarsasapogenin (15-1) [1, 2], and markogenin (15-2) [3, 4]. They are derived from spirostane (15-3). Sarsasapogenin is the major saponin found in the rhizome.



Sarsasapogenin (15-1)



Markogenin (15-2)



Spirostanane (15-3)

The saponins isolated and reported are referred to as timosaponins, including timosaponin A-I, A-II, A-III, A-IV, B-I, and B-II [4, 5]. Timosaponin A-III (15-4) was obtained as a homogeneous substance and structurally determined [5]. Timosa-