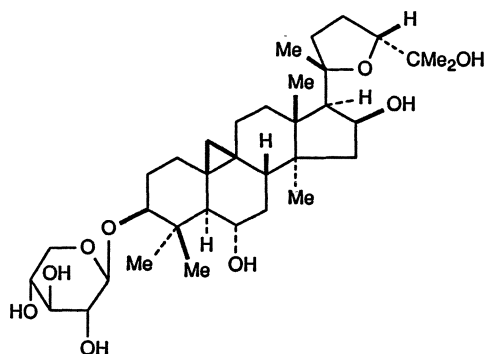
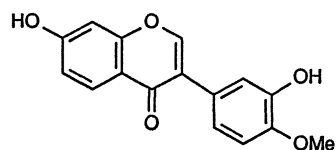


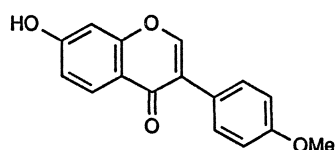
Astramembrainin I (26-15)



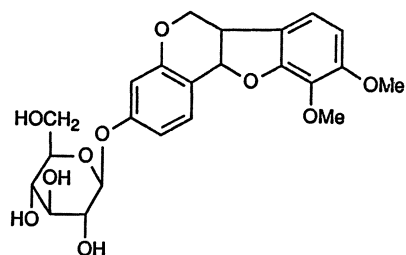
Astramembrainin II (26-16)



Calycosin (26-18)



Formononetin (26-19)

3-Hydroxy-9,10-dimethoxy-pterocarpan  
3-O- $\beta$ -D-glucopyranoside (26-20)

### 26.3 Pharmacology

The polysaccharides composed of glucose and arabinose extracted from *A. membranaceus* var. *mongholicus* were reported to increase the immune response when administered i.p. to mice. Moreover, they also caused an increase in the amount of RNA in the spleen and a decrease in the incorporation of [ $^3$ H]uridine into RNA [11]. Similar effects on other reticuloendothelial tissues but no effect on thymus, heart, or brain RNA or on DNA metabolism was noted [12].

The homogeneous fraction of polysaccharides obtained by water extraction, consisting mainly of astragalin I and II, exhibits a wide spectrum of immunological