

Sesquiterpene lactones as potential therapeutic agents

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Sesquiterpene lactones are a group of naturally-occurring compounds, most of them found in the Asteraceae family. To date about 8000 compounds have been reported. They consist of a C15 backbone with numerous modifications resulting in a variety of structures but with the common feature of a γ -lactone ring. They are classified in four major groups: germacranolides, eudesmanolides, guaianolides and pseudoguaianolides. There has been an increasing interest in sesquiterpene lactones due to the wide range of biological activities they present. Among them, the antitumor and antiparasitic activities can be highlighted.

Artemisinin derivatives, artesunate and artemether are drugs currently being employed, and dimethylamino-parthenolide, a parthenolide synthetic analogue, and mipsagargin, a prodrug from thapsigargin, are under clinical trials.

A summary with the most important findings about sesquiterpene lactones as potential antiparasitic and antitumor agents will be presented.