

Publication**Antiprotozoal activities of organic extracts from French marine seaweeds****JournalArticle (Originalarbeit in einer wissenschaftlichen Zeitschrift)****ID** 1027624**Author(s)** Vonthron-Sénécheau, C.; Kaiser, M.; Devambez, I.; Vastel, A.; Mussio, I.; Rusig, A. M.**Author(s) at UniBasel** [Kaiser, Marcel](#) ;**Year** 2011**Title** Antiprotozoal activities of organic extracts from French marine seaweeds**Journal** Marine drugs**Volume** 9**Number** 6**Pages / Article-Number** 922-33

Marine macrophytes contain a variety of biologically active compounds, some reported to have antiprotozoal activity in vitro. As a part of a screening program to search for new natural antiprotozoals, we screened hydroalcoholic and ethyl acetate extracts of 20 species of seaweeds from three phyla (Rhodophyta, Heterokontophyta and Chlorophyta), sampled along the Normandy (France) coast. We tested them in vitro against the protozoa responsible for three major endemic parasitic diseases: Plasmodium falciparum, Leishmania donovani and Trypanosoma cruzi. The selectivity of the extracts was also evaluated by testing on a mammalian cell line (L6 cells). Ethyl acetate extracts were more active than hydroalcoholic ones. Activity against T. cruzi and L. donovani was non-existent to average, but almost half the extracts showed good activity against P. falciparum. The ethyl acetate extract of Mastocarpus stellatus showed the best antiplasmodial activity as well as the best selectivity index (IC(50) = 2.8 µg/mL; SI >30). Interestingly, a red algae species, which shares phylogenetic origins with P. falciparum, showed the best antiplasmodial activity. This study is the first to report comparative antiprotozoal activity of French marine algae. Some of the species studied here have not previously been biologically evaluated

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