

# Pharmacognosy and Medicinal Plants

## ANTIOXIDANT ACTIVITY OF SOME TURKISH MARINE DERIVED FUNGI

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The marine habitat is a rich source of bioactive natural compounds with pharmaceutical potential. Some of them are novel compound with novel mechanisms of action (1). Marine derived Fungi which isolated from marine species such as sponges, anemone, tunicate and etc. have become a focus of interest. In recent years marine fungi have arisen as the new sources of antioxidants in the form of their wide variety of secondary metabolites such as alkaloids, benzoquinones, flavanoids, phenols, steroids, terpenoids, tetralones, and xanthenes(2,3). Numerous studies about diverse and unique compounds of marine fungi and their biological activities including antimicrobial, antioxidant, anticancer, anti-inflammatory and antiviral properties have been reported (4). In this study seven marine-derived fungi were isolated and identified from marine invertebrates and investigated with regard to their antioxidant activity. Antioxidant activity of extracts was determined by DPPH, ABTS, NO and SO assay. According to the obtained results *A.chevalieri* and *A. terreus* showed high antioxidant activity in every four assays. On the other hand, *A.awamori*, *M.globose*, *M. tassiana\_1* and *T. harzianum* showed lowest activity. This is the first study about habitant of marine-derived seven fungi of Turkey's coasts and their antioxidant activity. Besides, it is also the first report about antioxidant activity of *C. Funiculosum* and *A. awamori*

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### References

1. Montaser R. and Luesch H., Future Medicinal Chemistry. 2011, 3(12): 1475–1489.
2. Arora DS, Chandra P. Chandra Antioxidant activity of fungi isolated from soil. *Brazilian Journal of Microbiology*. 2010;41:465–477
3. Daljit Singh Arora and Priyanka Chandra ., Antioxidant Activity of *Aspergillus fumigatus*. *ISRN Pharmacol*. 2011; 2011: 619395.
4. Zainuddin N., Alias S.A., Lee C.W., Ebel R., Othman N.A., et al., *Botanica Marina*, 2010, 53 : 507–513.

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