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In vitro anti-inflammatory activity of microencapsulated and non-encapsulated astaxanthin

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Abstract: Encapsulated astaxanthin along with non-encapsulated astaxanthin was evaluated for its anti-inflammatory activity by *invitro* methods. *In vitro* anti-inflammatory activity such as inhibition of albumin denaturation, membrane stabilization by heat induced method, proteinase inhibitory action, HRBC membrane stabilization were determined at different concentration. Standard drug aspirin, Diclofenacsodium was used as positive control. In albumin denaturation at concentration 500 µg/ml ME 4 showed highest inhibition with 94.40 ± 0.208 % than standard (91.84 ± 0.115 %) and other samples. The highest activity was showed by ME 4 (91.15%) followed by ME 3 (90.30%), ME 2 (90.18%), ME 1 (89.04%) and non-encapsulated astaxanthin (88.41%) at concentration 500 µg/ml than standard drug (87.84%) in membrane stabilization test. In other two method also the test sample ME 4 exhibit better activity than other test and standard.

Keywords : Anti-inflammatory, HRBC method, membrane stabilization, albumin denaturation.

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