



## ASSESSMENT OF *MORINGA OLEIFERA* LEAVES AS NATURAL SOURCE TO PRODUCE HYPOLIPIDEMIC AND ANTIOXIDATIVE FUNCTIONAL FOOD

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### ABSTRACT

The objectives of this work is to investigate the antioxidative and hypolipidemic effect of Moringa oleifera leaf powder (MOLP). For this purpose 36 Male rats were assigned into six groups, each of six rats; negative control group feeding with basal diet, positive control group feeding with high cholesterol diet (HCD) and three tested groups fed on HCD and different ratios of MOLP; 25, 50 or 75g/kg diet, in addition to initial group, the feeding period was 45 days.

At the end of feeding period, compared to the positive control group, all tested groups demonstrated decrease in body weight. Also, as compared to the positive control, significant decreases in serum biological parameters were found, including; glucose, total lipids, triglycerides, total cholesterol, and LDL-cholesterol. Moreover increase was found in HDL-cholesterol and decrease in cholesterol and triglycerides in liver, compared to positive control group. Changes in all above parameters were according to the ratio of MOLP, each of the above three ratios with wheat flour was used to produce crackers. The dough of each product was submitted to rheological measurements using farinograph and extensograph. The best results for the rheological parameters, including; water absorption, stability time, dough development time, degree of softening and elasticity were found in dough containing 25% MOLP. The best dough was used to manufacture hypolipidemic and antioxidant crackers as functional food.

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