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Title: Anti-obesity effect and protection of liver-kidney functions by *Codium fragile* sulphated polysaccharide on high fat diet induced obese rats

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## **Anti-obesity effect and protection of liver-kidney functions by *Codium fragile* sulphated polysaccharide on high fat diet induced obese rats**

**Running title:** Hypolipidemic activity of sulphated polysaccharide.

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### **Abstract**

The present study investigates the hypolipidemic effects of sulphated polysaccharide obtained from *Codium fragile* (CFSP) in induced obese rats (HFD).

The results showed an increase in body weight of HFD rats by 21.56% as compared to control normal rats. Moreover, serum lipase activity underwent an increase which led to an increase in the levels of total cholesterol (T-Ch), triglycerides (TG) and low density lipoprotein cholesterol (LDL-Ch) in serum associated with a decrease in the level of high density lipoprotein cholesterol (HDL-Ch) in untreated HFD rats. This diet has disrupted the

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