

## EFFECT OF FUCOIDAN AND ITS FRACTIONS FROM *FUCUS VESICULOSUS* ON PLATELET AGREGATION

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Fucoidan is a sulfated L-fucose-rich polysaccharide obtained from brown algae. Using acetone fractionation we have got three fucoidan fractions (F1, F2, F3) of the fucoidan (F) from *Fucus vesiculosus*. The effect of fucoidan and its fractions on the platelet aggregation as well as their hemorrhagic activity in vivo is described in this work. The platelet aggregation was measured by method of Born and the hemorrhagic activity was carried in Wistar rats. The platelet aggregation test showed that F, F1, F2 and F3 (5mg/mL for all compounds) had a two-phase answer with maximum aggregation of  $76.36 \pm 10.3\%$ ;  $69.54 \pm 9.40\%$ ;  $75.94 \pm 9.01\%$ ;  $51.13 \pm 9.59\%$  respectively ( $p < 0.001$ ). However, all the fucoidans in a small dose (0.1mg/mL;  $p < 0.001$ ) showed a hipoaggregate effect (F:  $15.17 \pm 5.2\%$ ; F1:  $7.40 \pm 3.04\%$ ; F2:  $19.1 \pm 5.41\%$ ; and F3:  $5.09 \pm 3.02\%$ ). The results showed that the fucoidan and its fractions had a low hemorrhagic activity in compare to heparin. The data suggest that these compouds are new inductors of the platelet aggregation with potential pharmacological aplication.

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**Key words:** sulfated polysaccharide, *Fucus vesiculosus*, platelet aggregation.