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Characterization of Sulphated Polysaccharide with Antiviral Activity from Marine Brown Alga *Cystoseira myrica* Collected from Jazan Coasts, KSA

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Abstract: The hot water extract of brown alga *Cystoseira myrica*, collected from Jazan coasts, was fractionated into a neutral fraction NP and a sulphated hetero-polysaccharide SP. Based on the antiviral activity SP was fractionated by ion exchange chromatography on DEAE cellulose column into SP-1, SP-2 and SP-3 with molecular weight of 115 kDa, 90 kDa and 60 kDa on Sephacryl S-300 column, respectively. Fucose was the major sugar in SP-1. The fraction SP-1 showed a marked antiviral activity against both HSV and HAV. Its inhibition effect against HSV was 52.4 % where against HAV was 53.8 % at concentration of 10 µg/ml, where was 62.2 and 66.15 at concentration of 20 µg/ml respectively.

Key words: *Cystoseira myrica*, sulphated polysaccharides, antiviral, HSV, HAV.

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