

Unveiling the Role of Nano-Formulated Red Algae Extract in Cancer Management

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Table S1. The phytochemicals present in aqueous extract of *Amphiroa anceps*.

| S. No | Chemical test | Aqueous extract of <i>Amphiroa anceps</i> |
|-------|------------------------------------------------|-------------------------------------------|
| | <u>Test for Saponin</u> | +++ |
| 1 | Foam Test | +++ |
| | <u>Test for Tannins</u> | +++ |
| 2 | Baymer's test | +++ |
| | <u>Test for Terpenoids and Steroids</u> | - |
| 3 | Salkowski test | - |
| | <u>Test for Flavonoids</u> | +++ |
| 4 | Ferric chloride test | +++ |
| | <u>Tests for Alkaloids</u> | +++ |
| 6 | Dragendorff's Test | +++ |
| | <u>Test for Quinones</u> | - |
| 7 | Sulphuric Acid Test | - |
| | <u>Test for Glycosides:</u> | - |
| 8 | Glycoside test | - |
| | <u>Tests for Carbohydrates</u> | +++ |
| 9 | Molisch Test | +++ |
| 10 | Protein Test | - |
| | <u>Test for Polysaccharides</u> | +++ |
| 11 | Iodine Test | +++ |

Note: +++ → present components; - → absent.

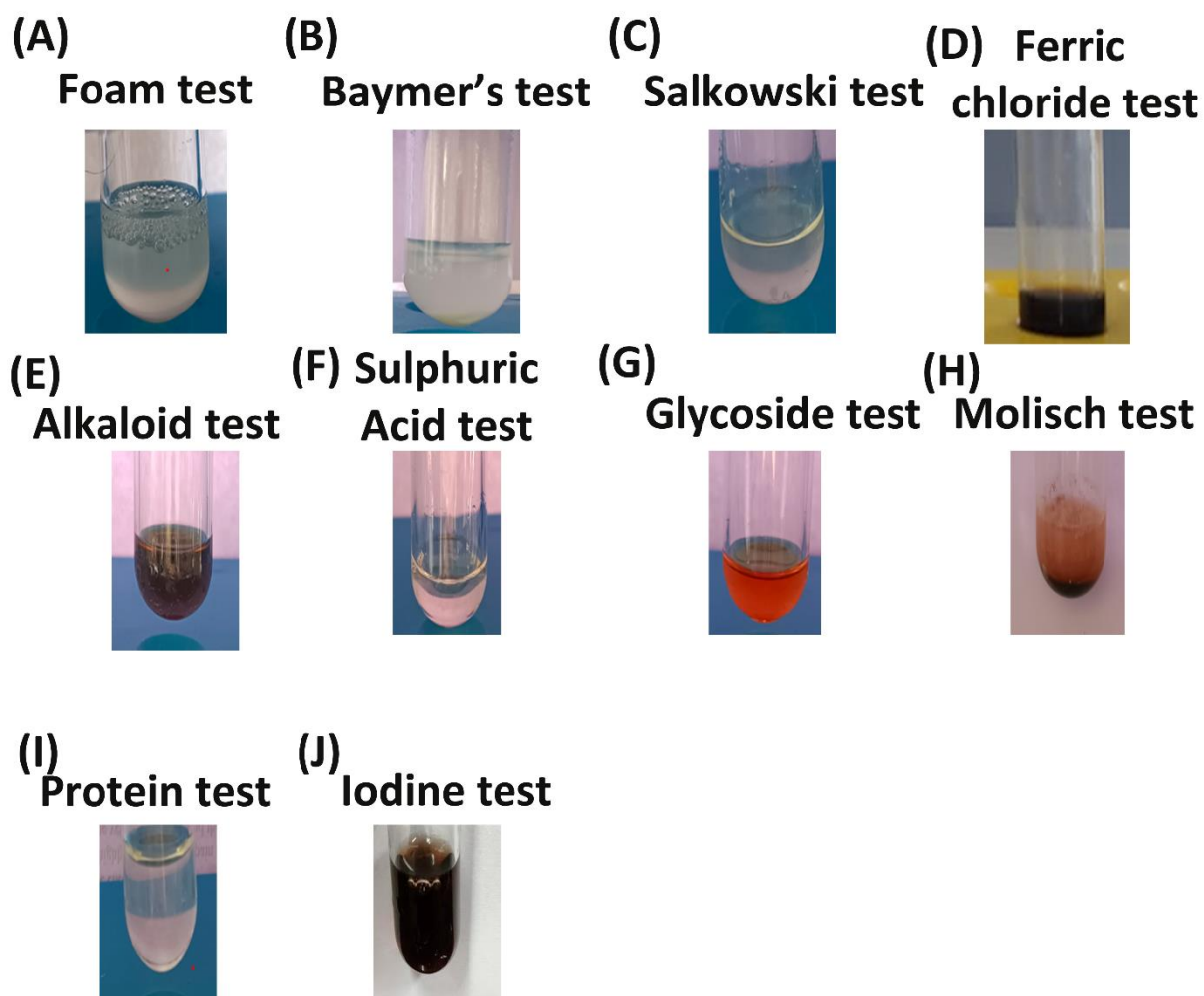


Figure S1. Phytochemical analysis of the aqueous extract of *Amphiroa anceps*. The images show the results of (A)-Foam test; (B)- Baymer's Test; (C)- Salkowski test; (D)-Ferric chloride test; (E)-Alkaloid test; (F)-Sulphuric acid test; (G)-Glycoside test; (H)- Molisch test; (I)- protein test; (J)- Iodine test.

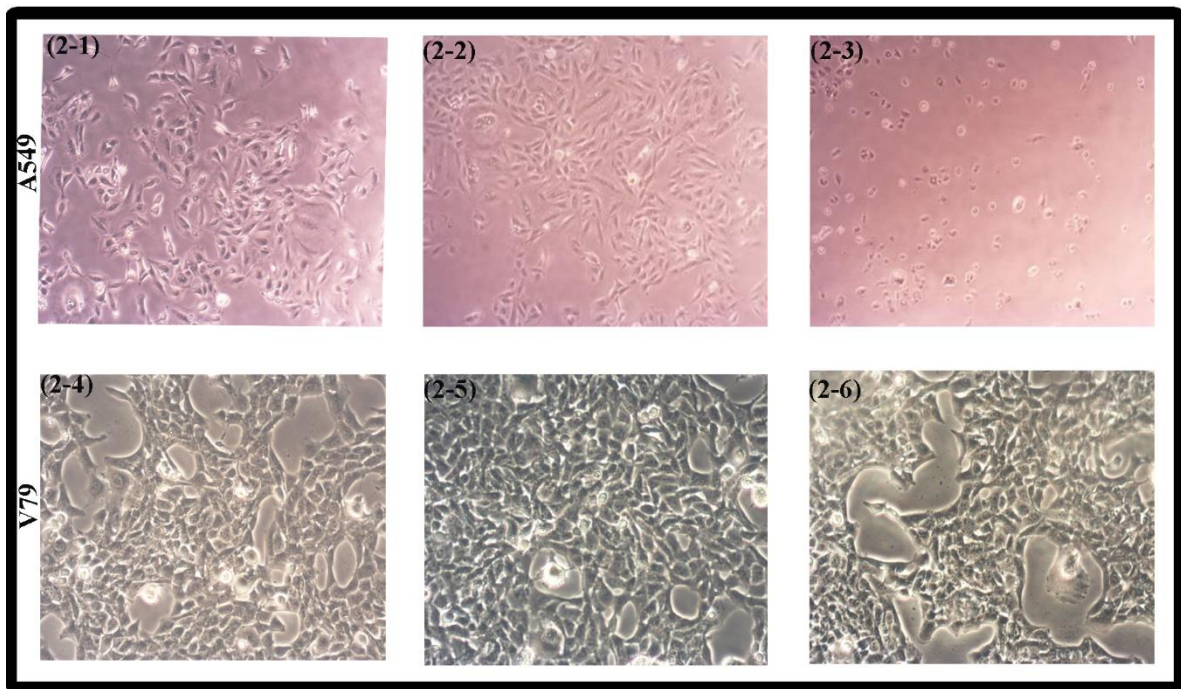


Figure S2. The inverted microscopic image of the A549 and V79 cells treated with aqueous extract and liposome formulated aqueous extract of *Amphiroa anceps* at a dose of 100 $\mu\text{g/ml}$ for 24h. (2-1; 2-2; 2-3) shows control and treated cells with HA and NHA for A549 cells; (2-4; 2-5; 2-6) shows control and treated cells with HA and NHA for V79 cells respectively.