



# Phytochemical Analysis and Pharmacological Actions of Selaginella Bryopteris and Opuntia Dillenii

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**Abstract:** Selaginella bryopteris and Opuntia Dillenii are plant grows on hills and can sustain droughts. It is used as a pharmaceutical herb from prehistoric times. It shows good activity against microbes. The Phytochemical analysis and pharmacological actions is also done for this plant. It acts as good anti-microbial agent against many microbes. We tested its antioxidant action in contradiction of E.coli, Staphylococcus aureus, Bacillus subtilis, Salmonella typhi, Aspergillus niger, Candida parapsilosis, Trichophyton rubrum these organisms and got good results with different parts of plant cuttings like Leaf and Roots.

Key Words : Selaginella bryopteris , Opuntia Dillenii , Phytochemical , microbes , pharmacological actions

## 1. Introduction

Plants are turning out to be more known to the Humans with their employments. The plants found by our people of old are as yet being used by us even presently a days. As human existence couldn't be supported without plants as the microorganisms are developing further the utilization of therapeutic spices additionally expanded. As the utilization of plants expanded we are acquiring information about plants. As the scientists began concentrating on the employments of spices it was at that point late and we lost numerous restorative plants in deforestation because of absence of attention to the plants. One of such home grown plant is Selaginella bryopteris[1].

The Selaginella bryopteris otherwise called Devanagari or Sanjeevani. It has numerous restorative uses and it relies upon rotting plants and downpour water for its supplements. They develop on rocks. Sanjeevani alludes to "One that Infuses Life".

The name given to this is a result of its restorative employments. This herbal is utilized to deal with a few medical conditions like Heart stroke, Jaundice, Dysuria, Irregular Menstruation and so forth. Despite the detail that it is utilized from old occasions these are not approved deductively. Indeed, even presently these are utilized by tribal in India[2].

It is viewed as the heavenly herbal in India as it is utilized to fix Lakshmana in the conflict of Ramayana. Different examinations led on the plant by numerous analysts and observed that is has high obstruction

towards dry season conditions. The rural researchers began concentrating on this person and are attempting to move this quality to the agrarian plants to get great yield. It has a progression of eleven biflavonoids containing amentoflavone and hinokiflavone [3].

The WHO appraises that 65-80% populace of the agricultural nations relies upon restorative plant for fundamental drug care. Lately there has been an extraordinary interest in finding regular cell reinforcements from plant materials.

The plant realm is a plentiful wellspring of phytochemicals having significant properties like cell reinforcement movement. In this manner plants are being inspected intently for new cell reinforcements, attributable to the useful wellbeing impacts of phytochemical cancer prevention agents [4].

Plant materials are modest and essentially add to the improvement of human wellbeing as far as fix and anticipation of sicknesses. These days, cell reinforcements have acquired a great deal of significance due to their true capacity as prophylactic and remedial specialists in the illnesses brought about by free extremists. Oxidative pressure happens when the creation of harming free revolutionaries surpasses the limit of the body's cancer prevention agent safeguards to detoxify them. Free extremists can be characterized as particles or sub-atomic sections containing at least one unpaired electrons in nuclear or sub-atomic orbitals. These unpaired electrons are exceptionally responsive with nearby atoms like lipids, proteins and starches and can cause cell harm[5]. The cell injury brought about by oxidative pressure has been connected to north of 200 clinical issues. Customarily, normal meds with free revolutionary rummaging properties have been utilized for different purposes. By and by, the dynamic citizens from the normal sources are tried for their free revolutionary searching potential. Various plants remembered for Ayurveda, for example, *Embolia officinalis*, *Curcuma longa*, *Momordica charantia*, *Swertia chirata* and *Withania somnifera* have been read up by different specialists for their cancer prevention agent potential. Subsequently, plants are of colossal significance in the free revolutionary and cancer prevention agent field. They supply us with the fundamental biradical, O<sub>2</sub>. Plants open themselves to significant degrees of O<sub>2</sub> as are wealthy in cancer prevention agent guards and fix frameworks against oxidative harm[6].

Cancer deterrence agents are atoms with revolutionary rummaging limit are remembered to apply a possible defensive impact against free dangerous harm. These biomolecules add to counteraction of coronary and vascular infection and of cancer development by possessing oxidative response. This oxidative harm is the consequence of free extreme activity on for example lipid or DNA[7].

The utilization of normal cancer prevention agent, for example, phenolic compounds, flavanoids, tannins and so on present in many shrubberies have been related with lower frequency of sickness connected with oxidative pressure. The interest in cell reinforcement specialists is since of the right now developing interest from the drug business for normal enemy of maturing and against cancer-causing bioactive build that have wellbeing advancing advantages[8].

Various unrefined concentrates and unadulterated normal compound from plants were accounted for to have cell reinforcement and revolutionary searching exercises. Among these flavanoids and phenolics, with a huge appropriation in nature have been concentrated on more extensively.

As of late antibacterial efficacies of *Selaginella inaequalifolia* and *S. involvens* have been explored against human microbes and poultry. Prickly plant (*Opuntia ficus indica*) can stop the ulcerogenic specialist to forestall harm. Ongoing investigations propose that the cactus remove has against malignant growth, hostile

to diabetic, hostile to viral and hostile to oxidant properties. Since of its noteworthy bioactivity it will be suitable to take this plant for the current review[9].

With this information, the current review was envisioned to explore the Antioxidant properties of concentrates of Selaginella and Opuntia for the administration of oxidative pressure with the accompanying principle destinations[10]:

1. To disengage the synthetically bioactive compound from Selaginella bryopteris and Opuntia dillenii
- 2.To notice enemies of oxidants movement of the finished two plants
- 3.Quantitative examination of auxiliary metabolites with the assistance of TLC, HPLC, HPTLC and other scientific strategies.
- 4.Invivo/Invitro screening of chosen plant separate for other organic exercises [11].

The two plants Selaginella bryopteris and Opuntia dillenii have been taken for present investigations in opinion of its immense therapeutic qualities. Thus the current review will reports the cell reinforcement movement of concentrates acquired from Selaginella bryopteris and Opuntia dillenii and their other natural exercises[10].

The test creatures “Staphylococcus aureus, Bacillus subtilis, Escherichia coli, Trichophyton rubrum, Pseudomonas aeruginosa, Salmonella typhi, Candida parapsilosis and Aspergillus niger” were refined onto supplement agar to decide their practicality. The character of each test life form was affirmed utilizing standard social, morphological and biochemical procedures. Stock societies were kept up with as Glycerol stocks at 4°C checking their feasibility period to period. Assessment of antimicrobial action[11].

The trial was finished with care and ideal taking care of in aseptic conditions. Supplement agar medium (25 ml) was occupied in a sterile petridish and stock societies of the trial disconnect (0.1 ml) containing  $1.0 \times 10^5$  CFU/ml of living beings were added. The concentrates were disintegrated in Ethyl liquor and utilized. The fixations utilized for the test are 10, 20, 40 and 50 mg/ml[12].

## 2. Phytochemical Analysis

### A. Materials and Methods of Phytochemical Analysis for Selaginella Bryopteris

Plant physical was gathered from the bumpy regions. Synthetic compounds, for example, wagner substance, chloroform, 2% H<sub>2</sub>SO<sub>4</sub>, Rigorous sulphuric Acid, 10% Lead acetic acid derivation, Benedict's reagent, 0.1% ferric chloride, Fehling's answer, weaken NaOH, 2% HCL, 10% Ammonia, 10% HCL, refined water, Ethyl Malt are given by the administration of the school [12].



**Figure 1: SelaginellaBryopteris**

### Preparation of solutions

**Fehling's solution:** A combination of equivalent capacity of copper sulfate, sodium potassium tartar ate and sodium hydroxide is ready in a measuring glass.

**Wagner's Reagent:** Blending 2gm of Iodine, 6gm of potassium iodide in 100ml of aquatic [13].

**Collection of sample:** Healthy leaves of Selaginella bryopteris were taken and eroded below running water to eliminate the residue and other outer poisons. The herbal leaves, roots and blossoms were air dehydrated for not many days. Ordinarily it takes 15 to 21 days for drying.

**Grinding the model:** The dried leaves are crushed to a fine dust in a blender and the dust is gathered in spotless polythene sacks [14].

**Preparation of plant extract with Ethyl Alcohol:** Taken 10gms of leaf dust and added 50ml of ethyl liquor mixed it continually for 30 minutes and the arrangement was kept at area temperature for 24 hours (least) and afterward sifted. The sifted arrangement is again separated with whatman channel paper No.3 and afterward it was put away at 4 degrees centigrade (in a cooler) until use [13, 16].

Table 1: showing results of Phyto-Chemical Analysis Selaginella bryopteris (Sanjeevani Plant) [15]

SN	Phytochemicals	Distilled Water	Methanol	Acetone	Ethanol
1	Tanins	N	P	P	N
2	Antraquinones	P	P	P	P
3	Flavanoides	P	P	P	P
4	Alkaloides	P	P	P	P
5	Terpenoids	P	P	P	P
6	Saponins	P	P	P	P
7	Cardiac glycosides	N	P	P	P
8	Glycosides	N	N	N	N
9	Reducing Sugars	N	P	P	N
10	Phlobatanins	N	P	P	N
11	Steroids	P	P	P	P
12	Phenolic	P	P	P	P
13	Aminoacids	N	P	P	P
14	Proteins	P	P	P	P
15	Quinones	P	P	P	P

**Antioxidant Potential of Selaginella Bryopteris:** Selaginella Bryopteris cancer prevention agent potential was broke down against DPPH and H<sub>2</sub>O<sub>2</sub> atoms in contrast with ascorbic corrosive. The consequences of cell reinforcement movement showed that Selaginella Bryopteris rough concentrate displayed amazing free extremist rummaging action, both against DPPH and H<sub>2</sub>O<sub>2</sub> atoms in a portion subordinate way [17]. The searching limit against DPPH free revolutionaries was higher than H<sub>2</sub>O<sub>2</sub> particles. The IC<sub>50</sub> upsides of rough concentrate of Selaginella Bryopteris for DPPH and H<sub>2</sub>O<sub>2</sub> were 231.6 µg/mL and 288.3 µg/mL, individually. The cell reinforcement capability of various types of Selaginella have been assessed by various strategies; from which, most depend on the assurance of free extremist rummaging movement [18].

## B. Materials and Methods of Phytochemical Analysis for Opuntia Dillenii

*O. dillenii*, wet weight (200g) (Figure 2) was gathered from timberland nursery, Bhopal. The plants were recognized by the Department of Chemistry, Barkatullah University, Bhopal, India.



**Figure 2: Opuntia Dillenii**

During the entire exploration project, two kinds of media were utilized, the Nutrient Agar and Simple Agar. Supplement agar is the finest refined media for testing miniature living being on the grounds that it gives supplements to the development of a wide range of microorganisms [19].

20 g of supplement agar was broken up in 1 liter of refined water in a cone shaped flagon and 4 g of straightforward agar is likewise added and connected a cup and shacked to blend well. Then, at that point, it is warmed on the hot plate stirrer to break down the media totally. The media and all crystal swabs were disinfected through autoclaving under the strain 15psi and temperature 121 °C for 15 minutes in an autoclave. After this media was emptied aseptically into Petri dishes in a laminar stream cupboard.

The example was washed appropriately with de-ionized water for eliminating soil, dust and other potential debasements. The plant was dried at room temperature for fifteen days and afterward squashed into powder utilizing a processor and afterward put away in clean plastic packs for additional handling. Around 120g of powder of both *O. dillenii* was taken for exploratory use to get ready plant concentrates, cold and hot gauge 10.7g and 8.8g of *O. dillenii* [14, 20].

Cold water extraction: 60g powder of *O. dillenii* plant was absorbed cold 300ml refined water and shaken on an electrical spinner at 200rpm for 24 hours. Following 24 hours the arrangement was sifted through a channel paper, then, at that point, centrifuged at 4400rpm for 7 minutes multiple times the supernatant showed up at the highest was gathered which was measured as 100 percent unadulterated plant separate while the tablet showed up at the lower part of axis tubes was disposed of the unadulterated concentrate were then prepared for antimicrobial awareness test (Table 2).

**Table 2:** Cold water abstraction of *Opuntia dilleni* [21].

Microorganism	Imipenem (Standard drug)	Zone of inhibition in (mm)			Mean
<i>Escherichia coli</i>	35	-	-	-	-
<i>Bacillus subtilis</i>	36	-	-	-	-
<i>Staphylococcus aureus</i>	43	15	15	16	15.33
<i>Proteus mirabilis</i>	91	-	-	-	-

Hot water extraction: 60g of *O. dillenii* powder was absorbed 300ml refined aquatic in a conelike carafes and afterward it set in the hatchery at 37 °C for 12 hours, later this they were set in the serious trouble shower for 2 hours and afterward centrifuged for 7 minutes at 4400rpm multiple times, then, at that point, separated through channel daily the supernatant acquired from third time centrifugation gathered though pellet were disposed of and this was measured as an unadulterated hot concentrate of these shrubberies and these were prepared for awareness tests (Table 3 & Table 4).

**Table 3:** Hot water abstraction of *Opuntia dilleni*.

Microorganism	Imipenem (Standard drug)	Zone of inhibition in (mm)			Mean
<i>Escherichia coli</i>	35	-	-	-	-
<i>Bacillus subtilis</i>	36	-	-	-	-
<i>Staphylococcus aureus</i>	43	-	-	-	-
<i>Proteus mirabilis</i>	91	14	13	13	13.33

Phytochemical broadcast was performed using normal procedure.

**Table 4:** Phytochemical Results for *Opuntia dilleni*.

Phytochemical	Result
Reducing Sugar	Negative
Saponin	Positive
Tannin	Positive
Terpenoides	Positive
Flavonoides	Positive
Alkaloids	Positive

**Test for diminishing sugars:** The liquid concentrates of the two plants (0.5g in 5ml of water) were added to warming up Fehling's response (A and B) in a test tube. The courses of action were seen for concealing reactions [22].

**Test for terpenoides:** To 0.5g all of the concentrate of the two plants were extra to 2ml of chloroform freely. Concentrated sulphuric destructive (3ml) was carefully added to outline a layer. Ruddy gritty hued tints of the association point exhibit the event of terpenoides.

**Test for flavonoides:** 4ml of concentrate courses of action of together the plants were treated with 1.5ml of half methanol game plan autonomously. The plans were become partial to and metallic magnesium was added. To these courses of action, 5-6 drops of thorough Hydrochloride destructive were added and the red tone was seen for flavonoids [23].

**Test for tannins:** About 0.5g of the concentrate of both the plants were risen in 10ml of water in test chambers and a short time later filtered. A few drops of 0.1% ferric chloride was added to both the test tubes and saw for gritty green or a blue-dim tone.

**Test for saponins:** To 0.5g of concentrate of both the plants were added 5 ml of refined water in test tubes. The courses of action were shaken energetically and seen for a steady consistent froth. The frothing was mixed in with 3 drops of olive oil and shaken predominantly after which it was seen for the course of action of an emulsion [24].

**Test for alkaloids:** Alkaloids courses of action produce a white yellowish hurry when a few drops of Mayer's reagents are added. Most alkaloids are rushed from fair or to some degree acidic course of action by Mayer's reagent. The alcoholic concentrates of both the plants were warmed on a gurgling water shower with 2% hydrochloric destructive. Resulting to cooling, the mixes were filtered and treated with several drops of Mayer's reagent. The models were then seen for the turbidity or yellow precipitation.

**Test for Cytotoxicity:**The 4-overlay weakenings of the methanol remove hatched with intersecting cell monolayers in 96-well plates and were noticed minutely for changes in cell morphology and suitability at 24, 48 and 72 hours of brooding (Chiang et al., 2002). The cytopathic impact was scored under an altered magnifying lens. The weakening causing infinitesimally noticeable change of typical cell morphology of the intersecting cell societies were assessed as half cytopathogenic impact regarding cell control [25].

### 3. Pharmacological Actions

#### A. SelaginellaBryopteris

This epilithic plant is a marvel spice with differed pharmacological employments. During parching stage the metabolites like sugars, phenolic compounds, and polyols present in the frond cell assists with securing against abiotic stresses and increments oxidative pressure resistance and these properties can be productively taken advantage of to get ready novel medication with antibacterial, anticancer, antifungal, and antiviral exercises and can likewise be utilized in surface level enterprises. The spice additionally has chemo-preventive and hostile to cancer-causing property. Chemoprevention biomarkers like proliferative file and status of cell-cycle administrative protein appraisal uncovers chemopreventive capability of this spice in 7,12-dimethyl benz (a) anthracene-interceded skin papilloma agenesis and benzopyrene-incited lung carcinogenesis coming about unperturbed cell-cycle guideline, hindrance of DNA fracture, upkeep of intracellular cell reinforcement protection, anticipation of stress-initiated senescence, mitigating movement, and genoprotective impacts against methyl isocyanate cancer-causing nature. The investigations on neuromodulator penchant of *S. delicatula* by synthetically instigating neurodegenerative infections in rodents and *Drosophila* that balances redox status and hinders mitochondrial working making it a potential up-and-comer in treating oxidative pressure intervened neurodegenerative sicknesses like Parkinson's illness. The investigates have likewise presumed that 10% fluid concentrate of *S. bryopteris* on refined bug *Spodoptera frugiperda* (Armyworm) and mammalian mouse macrophage ensures cells against oxidative pressure instigated cell demise 41% and 78%, and heatinduced cell passing 40-half, separately, accordingly making it a promising medication against stress-prompted intricacies primarily because of hotness shock [26].

The flavonoids like amentoflavone and hinokiflavone also have antiprotozoal activity against *Plasmodium falciparum*, *Trypanosoma cruzi*, *Trypanosoma brucei rhodesiense* and *Leishmania donovani* strains. The investigations on neuromodulator affinity of *S. delicatula* by synthetically prompting neurodegenerative infections in rodents and *Drosophila* that balances redox status and hinders mitochondrial working making it a potential competitor in treating oxidative pressure interceded neurodegenerative illnesses like Parkinson's sickness.

The investigators have likewise inferred that 10% watery concentrate of *S. bryopteris* on refined bug *Spodoptera frugiperda* (Armyworm) and mammalian mouse macrophage safeguards cells against oxidative pressure instigated cell passing 41% and 78%, and heat-induced cell demise 40-half, separately, in this manner making it a promising medication against stress-initiated confusions basically because of hotness shock. The spice with biflavonoids like amentoflavone and hinokiflavone likewise have antiprotozoal action against *Plasmodium falciparum*, *Trypanosoma cruzi*, *Trypanosoma brucei rhodesiense* and *Leishmania donovani* strains [27].

## B. *Opuntia Dillenii*

Various evaluations have shown the disturbance mitigating and directing impacts of the family *Opuntia* in different concentrate types like customary thing wipe out, lyophilized cladodes or the phytosterols from verdant food sources disengages. It has been addressed that this plant presents directing impacts. Lyophilized fluid concentrate of the aftereffects of the plant, utilized in Canarian customary medication for gastrointestinal and bronchial difficulties, was assessed for torture facilitating and calming impacts in rodents and mice. The OD free (100-400 mg/kg, i.p.) controlled, in a section related way, carrageenan-impacted paw edema in rodents. A section subordinate activity was acquired against designed (wriggling test) and thermic (hot plate test) refreshes, autonomously, with estimations of 50 and 100 mg/kg. In another study, evaluation of the reducing and distress allowing effects on liberated from the alcoholic concentrates of sprouts, food assortments created beginning from the earliest stage OD utilizing carrageenan-began rodent paw edema and electrical stream tests showed the most calming influence at the piece of 200 mg/kg of bloom dispose of. Bioassay-composed fractionation of this concentrate by vacuum fluid chromatography (VLC) trailed by Sephadex and paper chromatography showed three flavonoid glycosides for example kaempferol 3-O- $\alpha$ -arabinoside, isorhamnetin-3-O-glucoside and isorhamnetin-3-O-rutinoside. Siddiqui et al. showed the calming impact of OD cladode methanol eliminates utilizing limitation of arachidonic horrendous metabolites and cytokines. Their report in addition portrayed the easing improvement of opuntiol and opuntioside inquisitively. Different individuals from this grouping, for example, *Opuntia ficus indica* and *Opuntia humifusa* have in addition been addressed to show reducing impacts. Evaluation of express balance of the protected construction by OD polysaccharides in a murine model immunosuppressed by intraperitoneal implantation of cyclophosphamide (ip) showed that this plant may potentially redesign the particular safe constraint of immunosuppressed mice comparatively as the augmentation of lymphocytes in vitro.

The fluid ethanolic extricate from the new stems of OD has intense revolutionary rummaging movement. In this review, three new mixtures separated from OD called opuntioside I, 4-ethoxyl-6-hydroxymethyl- $\alpha$ -pyrone and kaempferol 7-O-beta-D-glucopyranosyl-(1 $\rightarrow$ 4)-beta-D-glucopyranoside, were assessed in light of the synthetic and physicochemical proof. The extremist rummaging impacts of chief mixtures were inspected too. Li H et al., assessed the cancer prevention agent impact of polysaccharides separated from OD utilizing DPPH test, hydroxyl extremists and superoxide revolutionary in vitro. Their review showed these acidic polysaccharides exhibited great cell reinforcement action. A sanitization and fractionation of OD remove confined a few betalains and polyphenol [25, 27].

It concentrated on the cell support development of awful polysaccharides from OD by DPPH measure used response surface framework (RSM) to redesign the extraction. Their audit uncovered OD unpalatable polysaccharides had a wonderful cell support improvement.  $\beta$ -Sitosterol detached from OD as the solid quieting compound is clearly consistently more delicate isolated and that of hydrocortisone.

## 5. Discussion

The antimicrobial improvement of all the three leaf takes out was inspected against Gram positive and Gram-negative microorganisms and parasitic strains by surveying zone of obstacle. The antimicrobial movement was performed by Agar plate dispersing procedure at fixation level of 2.5, 5.0, 7.0, 10 $\mu$ g/ml freely. Ampicillin (antibacterial), Itraconazole (or) Griseofulvin (antifungal) as the standard medication at a social event of 200 $\mu$ g/ml. LB Agar was utilized as the way of life media for antibacterial and potassium dextrose agar was utilized as culture media for the antifungal movement.

The *Selaginella bryopteris* leaf dispense with showed high action against *Staphylococcus aureus* at amazingly low fixation (2.5 $\mu$ g/ml) showed up contrastingly comparable to *E.coli*, *Bacillus subtilis*, leaf eliminate showed high movement against *Candida parapsilosis* at an exceptionally low focus (2.5 $\mu$ g/ml) stood apart from *Aspergillus niger*. The zone of not permanently set up in cm.

The *Selaginella bryopteris* root kill showed high action against *E.coli* and *Staphylococcus aureus* incredibly low fixation (2.5 $\mu$ g/ml) when explored and root eliminate showed high movement against *Aspergillus niger* and *Candida parapsilosis* at an especially low focus (2.5 $\mu$ g/ml) showed up diversely corresponding to *Trichophyton rubrum*. The zone of still hanging out there in cm.

Plants are more importance wellspring of possibly significant designs to work on new chemotherapeutic informed authorities. The essential face towards this objective is the in vitro antioxidant test. Many reports are accessible on the anthelmintic, antioxidant, antiviral, antifungal, antimolluscal and easing properties of plants. A piece of these perceptions have helped in seeing the extraordinary rule liable for such exercises and in the making drugs for the strong use in people. In the current appraisal the antibacterial advancement of *O. dilleni* was checked against four pathogenic bacterial strains among them two were Gram positive like *S. aureus* and *P. mirabilis* and two were Gram negative like *E. coli* and *B. subtilis*. The disease water concentrate of *O. dilleni* showed moderate antibacterial improvement against the *B. subtilis* and no improvement against the *E. coli*, *S. aureus* and *P. mirabilis*. The percolating water concentrate of *O. dilleni* showed moderate antioxidant advancement against the *P. mirabilis* and no antioxidant advancement against the *E. coli*, *B. subtilis* and *S. aureus* [11, 13, 21].

## 6. Conclusions

It can along these lines be expected that *S. bryopteris* with excellent strength property has a wide pharmacological uses and can be all over took advantage of to get ready medication plans for express huge afflictions. There are besides the potential consequences of its utilization as a fitting natural device to be arranged into dry season benevolent plant for battling an unsafe barometrical deviation and environment changes characteristic.

OD unquestionably ought to be considered as a plant with reasonable properties against different problems (Figure 2). Chiefly these days with the uncommon broadening rate of illnesses advanced by the ways of life

particularly including diabetes and cardiovascular diseases. The change with different conditions and sensational handiness of this plant make it appropriate for helpful looks at to clean and confinement new pharmacologically basic blends with more efficacies in the balance and treatment of different infections. Regardless different assessments on the family *Opuntia*, the pharmacologic properties, for example, adversarial to hyperlipidemia, against atherosclerotic, easing, against diabetic, antiviral, cell support and against ulcerogenic properties were uncovered.

The current work has shown that *Selaginella bryopteris* and *O. dillenii* is possibly a decent wellspring of antioxidant specialists which can be utilized in the future for supporting principal clinical thought.

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