# Comprehensive Assessment of the Antioxidant and Anticancer Potential of Selected Ethnobotanical Plants

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**Qualitative Phytochemical screening.** The extracts were used for preliminary phytochemical screening with a battery of chemical tests for detection of organic constituents present. Small number of extracts were dissolved in distilled water and following tests were performed: Biuret and Millon's tests for proteins, Ninhydrin's test for amino acids, Salkowski and Liebermann-Burchard's reactions for steroids, Borntrager's test for anthraquinone glycosides, Shinoda and alkaline tests for flavonoid glycosides, and ferric chloride, lead acetate, potassium dichromate and dilute iodine tests for tannins and phenolics.

The different qualitative phytochemical screening tests were performed for establishing the chemical profile of the ethanolic extracts of (CAN, LEX, SES, DES, and CA). In the present investigation all the extracts of plant were analysed for the presence of alkaloids, carbohydrates, glycosides, sterols, phenolic compounds, resin, and flavonoids using standard procedures [1, 2]. The results pertaining to this investigation were presented in Table 1.

**Table 1.** Preliminary Phytochemical screening of the selected medicinal Plants

| Phytochemicals | Selected Pants | | | | |
|---|---|---|---|---|---|
| | CAN | LEX | SES | DES | CA |
| Phenolic | +++ | +++ | +++ | +++ | +++ |
| Flavonoids | +++ | +++ | +++ | +++ | +++ |
| Alkaloid | +++ | +++ | + | ++ | ++ |
| Resin | +++ | +++ | +++ | +++ | +++ |
| Tannins | +++ | +++ | +++ | +++ | +++ |
| Phytosterols | ++ | ++ | +++ | ++ | +++ |
| Carbohydrates | +++ | +++ | +++ | +++ | ++ |
| Proteins | +++ | +++ | +++ | +++ | +++ |
| Amino acids | +++ | +++ | +++ | +++ | +++ |
| Saponin | ++ | ++ | +++ | ++ | ++ |
| fats & oils | +++ | +++ | ++ | ++ | ++ |
| Glycosides | - | - | - | - | - |

'+' indicates the presence of constituents.

Based on the sensitivity of test it is classified in three types:

Within 5 min: + + +

Within 10 min: + +

Within 15 min: +


1. Kokate, C.K., A.P. Purohit, and S.B. Gokhale, *Pharmacognosy*. 2007: Nirali Prakashan.
2. Jeet, K., et al., *Pharmacognostic and phytochemical investigation of whole aerial part of Argyreia nervosa.* Int J Biol Pharm Res, 2012. **3**(5): p. 713-717.