INTRODUCTION

Western ghat, a veritable emporium of medicinal plants, flora and fauna are of enormous scientific interest due to their major share in earth’s biological resources. It is estimated that two-third of India’s endemic plants are found in these rich tropical evergreen forests. This unique biodiversity blessed with more than 10,000 native medicinal plants. It is also boasts a long tradition of medicinal use of plants, it is estimated that at least 200 species are used by Indians for the treatment of cancer. Western Ghats of India is a area rich in biological diversity and traditional knowledge. A lot many folklore and tribal medicines with a long record history on the usage of these plants for various purposes are practiced from this region. Although many developing countries spend a large proportion of their total health budget on discoveries and utilization of drugs, still depend on herbal remedies as many times of modern medicine are beyond the reach of three quarter of third worlds population and for them, the utilization of herbal drugs becomes a necessity. The utilization of modern scientific methods in exploring possibilities of obtaining better medicaments from the traditional system has there fore, become an important task in herbal medicine research.

Now attention is given for search of new anticancer agents because cytotoxic therapy has shown limitation of its possibilities and low efficiency in treatment of cancer. Cancer is second largest single cause of death, claiming over six million lives each year worldwide. Depending on the stage of cancer, surgery, radio therapy and chemotherapy are the most commonly used treatment modalities. In the present scenario the search for newer molecules is changing towards the natural bioactive substances owing to their fewer side effects and low cost. About 60% of currently existing anticancer drugs are derived from natural sources.

_Diospyros_ species are known to elaborate a series of naphthoquinones and pentacyclic triterpenoid saponins. Ebenaceae are recognized by their fruits which appear like little persimmons, often brownish, and seated on persistent calyx of significant hardness. The wood of Ebenaceae is dense, very hard, and blackens upon exposure to light. The principle responsible for the pelicular colour of ebonies is naphthoquinones. With regard to the pharmacological potential of Ebenaceae, the evidence for the existence of possible therapeutic agents are strong and it seems quiet likely that further studies will results in the isolation and identification of certain antibacterial, antiviral, cytotoxic, mano amino oxidase inhibitors, antioxidant monomers,
dimers or oligomers of naphthoquinones. Approximately 20 species of Ebenaceae are used for medicinal purposes in Asia, especially to treat cancer and viral infections\textsuperscript{6-10}.

Here the mission of our current study is to explore three unexplored \textit{Diospyros} species from Western Ghats Karnataka for their dynamic biological profile i.e. Anticancer.

Survey of literature and documentation of tribal knowledge also reveals that various parts like roots, leaves, bark and flowers of all the selected species are found to be used in tribal medicine for is different pharmacological activities, especially in cancer. However, these species have not been significantly screened and tested for cytotoxic activity, hence the present study is under taken to evaluate for phytochemical investigation and cytotoxic screening for roots of \textit{Diospyros oocarpa}, \textit{Diospyros nigrescens} and roots of \textit{Diospyros candolleana}. 