

## Chemical composition and antioxidant potency of Pitch Trefoil

**Background:** Natural products with potent antioxidant activity are of great importance for the prevention of oxidative stress that may cause various degenerative and metabolic disorders. The aim of the current investigation is to determine qualitative and quantitative phytochemical components of *Pitch Trefoil* methanol, acetone, hexane and aqueous extracts also to assess their antioxidant.

**Methods:** The quantitative and qualitative tests were estimated for *Pitch Trefoil* four solvents extracts using standard analytical procedures. In addition, *in vitro* antioxidant property was estimated using 2,2-diphenyl-1-picrylhydrazyl (DPPH) assay.

**Results:** The hexane extract has a high amount flavonoids content ( $103.95 \pm 4.7$  mg of RU/g of dry extract), while the acetone extract has the highest amounts of hydrolysable tannin and anthocyanin with values of  $84.33 \pm 1.56$  mg of GAE/g of dry extract and  $17.5 \pm 0.7$  mg of CAE/g of dry extract, respectively also has potential antioxidant activity with  $IC_{50}$  value of  $17.37 \pm 1.97$   $\mu$ g /ml.

**Conclusion:** This investigation reveals that hexane extract of *Pitch Trefoil* is a potential source of natural antioxidants agent and can form the basis for therapeutic applications. Therefore, plant had potential for use in the further clinical study to investigate its efficacy and safety in human models.