

E2-56: Chemical investigation of Jak (*Artocarpus heterophyllus*) leaves used in the treatment of Diabetes Mellitus

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Hot water extract of mature Jak leaves (*Artocarpus heterophyllus*) is recommended by Ayurvedic and traditional medical practitioners as a treatment for diabetes mellitus.

Phytochemical screening of the hot water extract showed the presence of flavonoids, leucoanthocyanins, anthocyanins and tannins. TLC analysis for sugars of the hydrolysed extract indicated the presence of galactouronic acid, rhamnose and glucose in the polysaccharides of the Jak leaves.

Only one anthocyanin pigment was present in the extract. Chemical and physical tests indicated that the anthocyanin pigment was petunidin.

TLC analysis of the ethyl acetate extract showed the presence of 4 flavonoids in the sample. Chemical and physical tests indicated that one of the flavonoids was kemoferol, which has been reported as an active antidiabetic principle.