

# Aloe Vera: Optimizing Extraction and Evaluation for Therapeutic Benefits

Gowda Aishwarya K., Dinkar Pratiksha S., Bhoir Pranali S., Padwala Prachi N.

Department of Pharmacognosy  
Samarth Institute of Pharmacy, Belhe, Maharashtra, India

**Abstract:** *Aloe vera* belongs to the family Xanthorrhoeaceae commonly known as Ghrit Kumari, is the oldest medicinal plant ever known and the most applied medicinal plant worldwide. Phytochemistry of *Aloe Vera* gel has revealed the presence of more than 200 bioactive chemicals. The Proximate composition involves the moisture content, crude protein, crude fibre, crude fat, ash content and carbohydrate. Phytochemicals determined were Saponins, Glycosides, Cardiac glycoside, Saponin glycoside, Alkaloids, Balsams, Volatile oil, Anthraquinone, Tannin, Steroid and Flavonoids. *Aloe barbadensis* was found to be rich in Carbohydrate (78.88%), so it can be used as a good source of Carbohydrate. Results revealed very profound activities of the plant extracts against the tested gram positive strains including *Staphylococcus aureus*, *Bacillus subtilis*, *Bacillus atrophoeus* and gram negative bacterial strains ie. *Escherichia coli*, *Klebsiella pneumoniae*, *Salmonella typhi*. The extracts also showed considerable activity against the tested fungal strains *Aspergillus flavus*, *Aspergillus niger* and *Candida albicans* methanol was selected as organic solvent as found maximum extraction of aloin with it the active principle aloin was quantified using WATER's HPLC system. The external use in cosmetic primarily acts as skin healer and prevents injury of epithelial tissues, cures acne and gives a youthful glow to skin, also acts as extremely powerful laxative.

**Keywords:** Aloe vera, Extraction, Antioxidant