

ABSTRACT

Papaya (*Carica papaya* L.), one of the extensively studied plants, belongs to the family Caricaceae. Papaya is commonly known for its nutritional and medicinal value worldwide. Many parts of papaya plant such as roots, leaves, peels, fruits, and seeds have nutritional and therapeutic significance. The aim of this review is to consolidate the evidence-based information on papaya's functional activities, collected from online databases (Scopus, Dimensions, Google Scholar, ScienceDirect, and Web of Science) up to December 2020. A considerable literature is available detailing biomedical uses of different papaya plant parts which made papaya a treasured nutraceutical plant. Papaya plant possesses valuable phytochemicals such as phytosterols, tocopherols, flavonoids, alkaloids, and carotenoids. These compounds with interesting nutraceutical properties play key roles in ameliorating and treating some medical conditions such as inflammation, hyperglycemia, fertility-related complications, and hypertension and possess anticarcinogenic activities. However, further studies are warranted to validate the dosage, mode of actions, and safety profile of papaya seeds, peels, and leaves when used as medicine.

Keywords: Papaya seeds Phytochemicals Gastroprotection Anticancer Antimicrobial Nutraceuticals Antifertility