

ABSTRACT

ZULKA SAVIRA. *Standardization of Purple Passion Fruit Peel Extract (*Passiflora edulis* var. *edulis*)* (Supervised by **Abd. Malik** and **Aktsar Roskiana Ahmad**)

The peel of purple passion fruit (*Passiflora edulis* var. *edulis*) represents a valuable agricultural product with rich in bioactive compounds, such as flavonoids and polyphenols. The bioactive compounds exhibit significant antioxidant, antidiabetic, and antihypertensive properties. This study aimed to standardize the extract by determining both specific parameters (extract identity) and non-specific parameters (extract safety). The extract was obtained through maceration using 96% ethanol, followed by standardization process. Specific parameter revealed a viscous, dark brown-to-black extract with distinctive organoleptic properties (characteristic aroma and bitter taste), containing 16.31% water-soluble and 20.04% ethanol-soluble compounds. The phytochemical analysis confirmed the presence of alkaloids, flavonoids, tannins, saponins, and triterpenoids. Meanwhile, the non-specific parameters were as follows: drying loss of 1.5035%, specific gravity of 0.8099 g/mL, moisture content of 6.9271%, total ash content of 4.5542%, acid-insoluble ash of 0.5475%, total plate count (TPC) of 2.6×10^5 CFU/g, total yeast and mold count (TYMC) of 1.0×10^2 CFU/g, cadmium (Cd) content <0.00003 µg/g, and lead (Pb) content of 0.9768 µg/g.

Keywords: Passion fruit peel of purple variety (*Passiflora edulis* var. *edulis*), standardization, specific parameters, non-specific parameters

