

Formulation of *Houttuynia cordata* Standardized Extract Tablets

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ABSTRACT

The preparation and quality control of standardized Houttuynia cordata (HC) extract, and the formulation of tablets containing HC extract (HCE) as a food supplement product were studied. HCE was obtained by repeated maceration of dry HC powder (HCP) with ethanol and solvent removal under reduced pressure. Standardization of HCE was carried out using chromatographic methods. HCE was adsorbed onto corn starch or silicified microcrystalline cellulose 90 (SMCC90) to obtain HCE powder (HCEP), which was formulated into tablets. Quality control (QC) of HCEP and tablets was performed after preparation and after stability tests for 3 months at room temperature (RT) and at 45°C. The yield of HCE was 5.85% dried weight (DW). Chromatographic analyses showed quercetin and rutin as major components and potential QC markers. Appearances and moisture analyses of HCEP indicated SMCC90 as the superior adsorbent. The optimum formulations, with 5.29 and 3.30% Loss on drying (LOD), and repose angles of 46.2±4.8° and 28.1±2.6° for HCEP and bulk, respectively, were selected. Weight of tablets was 250±18.75 mg while hardness, friability and disintegration time were 41.5±3.2 N, 0.04% and 1.23 min, respectively. Stability test revealed that moistures of HCEP and bulks kept at RT were lower than those stored at 45°C. Tablet hardness decreased after storage at 45°C. All tablets passed friability tests, while the disintegration times were between 1-2 min. These results suggested that standardized HCE can be employed in the formulation of food supplement tablets with good uniformity and stability.

Key words: *Houttuynia cordata*, Standardized extract, Chromatography, Food supplement, Tablet formulation